

American Artisan and Hardware Record

Sheet Metal—Roofing—Warm Air Furnaces—Stoves

Vol. 88. No. 22

CHICAGO, NOVEMBER 29, 1924

\$2.00 Per Year

THE SUPER-SMOKELESS FURNACE

The Easiest Furnace to Sell!

The SUPER-SMOKELESS Furnace is the easiest furnace to sell because it has so many sales "talking points" and features which insure durability, economy and satisfaction to the owner.

The SUPER-SMOKELESS Furnace will burn soft coal without smoke, thus insuring cleanliness and health. Their scientific design produces the greatest efficiency and economy, while their strong castings make for durability and lasting service. They are quickly and easily erected.

It will pay YOU to be a SUPER-SMOKELESS Dealer! Send for complete literature and Special Dealer Proposition.

UTICA HEATER COMPANY

UTICA, New York

218-220 West Kinzie Street, Chicago, Illinois



The Only Weekly Published Covering the Entire Field

The Waterbury vs. Hot Water Heat

This Waterbury dealer's letter tells what happened when the Waterbury and hot water heat competed for a home-builder's preference:

Sept. 10, 1924.

"About a year ago an old gentleman of our city built three houses, one for his home and two to rent. In his home he put Hot Water heat in spite of all our efforts. But he finally put in Waterbury Pipe furnaces in the other two houses.

Recently we had a talk with him and asked, "Well, how are the furnaces we sold you?" and this was his reply: "Well, sir, they are all right and just as you represented them. I wish I had one in my own home in place of that hot water affair."

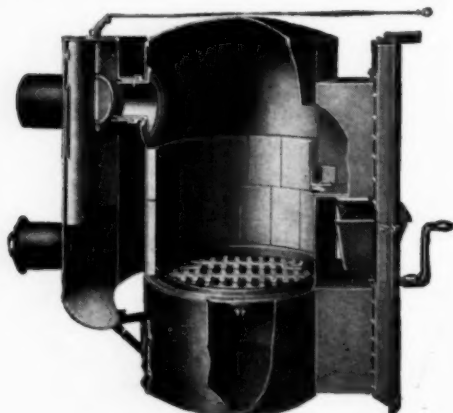
We thought that a pretty good recommend for Waterbury Clean Heat. We feel that if furnace men over the country would use the Waterbury Seamless Furnace and be very careful of their installations the main objections to Warm Air heat would be overcome and we could soon put the steam fitters out of business."

C. S. LOW,
Sweeney Hardware Co., Rapid City, S. Dakota.

WATERBURY SEAMLESS FURNACE PIPE OR PIPELESS

If you want to sell a furnace that beats hot water competition or any kind of competition, write us today!

The Waterman-Waterbury Co.
1122 Jackson St. N. E. Minneapolis, Minn.



*Welded Seamless Steel Alloy
Body of the Waterbury*



Fuel and Furnaces

THEY are inseparable. One needs the other or each is useless.

The relationship of this company to its dealers is as close as Fuel and Furnaces.

Our product and your placing of it are cemented by a mutual interest to sell Niagara Furnaces to every possible user in your territory.

We have ways of helping you about which we would like to tell you.

*Write or wire us for
our Special Dealer Partnership Plan.*

**THE FOREST CITY FOUNDRY
& MANUFACTURING COMPANY**

1220 Main Avenue Cleveland, Ohio

Also Manufacturers of Monarch and Peerless Furnaces

Founded 1880 by Daniel Stern

Published to Serve
the
Warm Air Furnace
Sheet Metal, Stove
and
Hardware Interests

AMERICAN ARTISAN and Hardware Record

Address all communications
and remittances to
AMERICAN ARTISAN
AND
HARDWARE RECORD
620 South Michigan Avenue
CHICAGO, ILLINOIS

PUBLISHED EVERY SATURDAY

Eastern Representatives: C. C. Blodgett and W. C. White 1478 Broadway New York City

Yearly Subscription Price: United States \$2.00; Canada \$3.00; Foreign \$4.00

Entered as Second-Class Matter June 25, 1885, at the Post Office at Chicago, Illinois, under Act of March 3rd, 1879

Vol. 88. No. 22.

CHICAGO, NOVEMBER 29, 1924.

\$2.00 Per Year

Table of Contents

Page	Page
Editorials 11 and 12	Advertising Campaign on Sheet Metal Lays Stress on Fire Protective Quality..... 23
Contest for Photographs of Good Sheet Metal Work 11	Copper Industry Has Grown from Small Be- ginning to Great Proportions..... 24
Some Things for Furnace Men to Consider Very Seriously Right Now..... 12	Iowa Sheet Metal Auxiliary Planning for 1925 Convention 25
Random Notes and Sketches..... 13	Announcement of Prize Contest for Photo- graphs of Good Sheet Metal Work... 26 and 27
Heating and Ventilating Department... 14 to 21	Pittsburgh Apprentice Training School Plan.. 28
Furnace Installer Has Some Pointed Remarks for Manufacturers to Think of..... 14	Michigan Architectural Service Board Is Doing Good Work 29
Program for Western Warm Air Furnace and Supply Convention 16	Hardware Department 30 to 34
Window Display Helps to Sell Furnaces..... 17	Window Display of Holiday Cutlery..... 30
Installer Must Write Furnace Advertising from Standpoint of Reader Interest..... 18	American Artisan Window Display Compe- tition 31
How to Heat One-Story Garage Without Basement 19	Window Lighting Principles..... 32
Presley Solves Reinhardt's Problem..... 20	Coming Conventions 33
Sheet Metal Department..... 22 to 29	Retail Hardware Doings..... 34
How to Make Folded Corners When Nickel Zinc Is Used 22	Advertising Criticism 35
	Market Review 36

READ THIS! THEN ACT!!

Again, service speaks louder than words.

On pages 21 and 25 respectively, of AMERICAN ARTISAN AND HARDWARE RECORD for November 15th, there appear communications from T. B. Callahan and W. F. O'Neil, both asking for a renewal of their subscriptions.

Mr. Callahan says this is his Forty-second subscription.

Mr. O'Neil says he has been a subscriber for almost half a century.

We know that there are hundreds of subscribers who have read AMERICAN ARTISAN AND HARDWARE RECORD consistently for periods of time equalling those of Callahan and O'Neil.

In order eventually to get into a closer personal contact with each and every one of our subscribers, and to create an honor roll for those subscribers who have used AMERICAN ARTISAN AND HARDWARE RECORD for forty or more years, we ask all those latterly-mentioned to send us their names, their present business—whether furnace installer, sheet metal contractor or hardware men.

ALPHABETICAL INDEX AND CLASSIFIED LIST OF ADVERTISERS, Pages 44-46-48.

INTERNATIONAL CARTON

A Self Cleaning Radiator Soot Cannot Collect

How Are You Meeting Price Competition?

A successful way to meet price competition is to sell the distinctive *self-cleaning* **INTERNATIONAL Carton Furnace** that takes you out of the competition class.

In nearly every community you will find Carton Furnaces that have given satisfactory heating service for 25 to 60 years; such durability is not secured with an ordinary furnace.

Besides being efficient and durable it is easy to operate and the *radiator* is *self-cleaning*.

No expense for cleaning — no heat lost thru the insulating effect of soot — a big factor with high priced fuel.

Plan for more profit next year. Use International Cartons. Send for complete information and catalog 1563-S.

INTERNATIONAL HEATER COMPANY

UTICA, N. Y.

New York, Chicago, Detroit, Cleveland, Nashua, N. H.



Contest for Photographs of Good Sheet Metal Work Is Announced on Pages 26 and 27



ON pages 26 and 27 of this issue, we announce a prize contest for men engaged in sheet metal work—apprentices, journeymen, contractors, salesmen, engineers, architects, builders, ultimate consumers, manufacturers, converters, in short, everybody.

The only persons excluded are employees of American Artisan, and this because of Uncle Sam's ruling only.

This contest has a manifold purpose:

First—to collect a large number of photographs showing examples of good sheet metal work—such as cornices and other ornamentations on buildings, ceilings, wall coverings, roofs, skylights, ventilators, etc., also of cases where sheet metal has replaced other materials, either because of greater beauty, higher degree of serviceability or lower cost.

Second—to furnish these examples of good sheet metal work to sheet metal contractors, so that they may use them in selling their services and the metal to builders and architects.

Third—to bring the sheet metal trade at large to a fuller realization that for many purposes, a good quality of sheet metal, properly erected, is far superior to any other material, whether from the standpoint of beauty, durability or cost.

We have on numerous occasions published articles showing and describing installations of sheet metal that were unusual in character, or where other materials had been found unsatisfactory and sheet metal had been used for replacement. Other instances of long service and beautiful effects in sheet metal have been shown in the news pages of American Artisan.

The photographs which will be submitted for this contest will be reproduced in American Artisan in such a manner that our subscribers may detach the illustrations and descriptions and keep them in a reference file,

or have them framed, so that they will be ready for use when the question comes up with architects or builders, as to what material is likely to be most suitable and most serviceable.

This contest will be a success only if all classes of men interested in promoting the use of sheet metal for building purposes take an active part. We desire photographs of all classes of sheet metal building work, from all sections of the country. We know that there are a multitude of samples of good sheet metal work, and it is merely a matter of getting them together. The contest is a good vehicle, but is only the beginning of the intensive campaign which will be carried on by American Artisan in cooperation with the National Association of Sheet Metal Contractors, the Sheet Steel Trade Extension Committee, the Copper and Brass Research Association, the American Zinc Institute and other bodies, the members of which have the common goal of a better appreciation and greater use of sheet metal for building work.

Read the particulars of the contest on pages 26 and 27 of this issue and send in as many photographs as you like; the more the better, and remember that the closing date of the contest is March 15, 1924. But this does not mean that you should delay sending in your photographs and descriptions. Send them as quickly as you can.

* * *

The man who installs a furnace in a slipshod manner not only injures his own chances for success, but he makes it more difficult for everybody else to build a successful furnace business in that locality. Good work, on the other hand, not only enhances the prospects of the good workman but builds a solid foundation for the success of everybody who does good work.

Some Things for Furnace Men to Consider Very Seriously Right Now.

Editorial
of the
Week

ON pages 14 and 15 of this issue we publish a letter from a warm air furnace installer of recognized ability and a success in a financial way.

This letter is worthy of more than casual reading. Statements are made by this man, the truth of which can not be controverted. The conditions in the locality of which he speaks are as bad as he paints them. The remedies that he suggests may not be the best, but he does suggest some things that appear practical and reasonable to the man "up a tree."

It is also worthy of note that "Illinois Observer," the pseudonym that he uses, is not despairing of the ultimate recovery of the Warm Air Furnace as the recognized superior of any heating apparatus for residences. On the contrary, if he did he would not bother to make suggestions as to what may be done to accomplish the goal he hopes will some day be reached.

And furthermore, he acknowledges the fact that things are getting around toward a general recognition—both by manufacturers and by installers—of the fact that if the Warm Air Heating Industry is to grow in prosperity rather than retrograde into poverty united action must be taken, not only to preach the gospel of War Air Heat but also to abolish the many abuses which are now prevalent, among installers as well as manufacturers.

And again, the writer of this letter is glad to acknowledge that the National Warm Air Heating and Ventilating Association has laid a foundation on which the educational work which must be carried on among consumers, builders, architects, house owners, installers and manufacturers, can be based, and he freely gives credit to the far-sighted men who inaugurated the Research Work at the University of Illinois.

So "Illinois Observer" is not a just fault-finder, but rather an earnest seeker for a solution of a troublesome condition, and he is hopeful, too, which is another good sign, for unless a man is really willing to take his own medicine and to work with others, there is little use in providing things that he may employ to advantage—he simply will keep on finding fault, and the conditions of which he complains will grow worse instead of improving.

We are glad to publish this letter, although regretting that conditions are such as to call forth such a letter, because we feel certain that the spirit which governs the actions of those who have the affairs of the National Warm Air Heating and Ventilating Association is such that the great work which has been started by that organization will be carried on to a successful end, and that this letter, with its criticisms and useful suggestions, will be considered in the same spirit of helpfulness that animated the writer of the letter.

We have made a good start. The erection of the Research Residence at Urbana, Illinois, is only one of the great things accomplished by the National Warm Air Heating and Ventilating Association. As time goes, and as we learn more of the scientific facts about Warm Air Heat, as tested and under practical conditions in this Residence, we shall also see a greater appreciation of the Warm Air Furnace as the ideal heating plant for residences.

* * *

Few men are so important that they can afford to disregard their fellow business men, or competitors as we frequently call them, and it is always good policy to be on good terms with the other men who are trying to serve the wants and needs of the people in the same community—even if you do not consider them in your class.

Random Notes and Sketches.

By Sidney Arnold

Thanksgiving Day is past, but even after the last turkey bone has been picked clean, it is well to remember that one of the chief things we Americans have to be thankful for is the fact that we are fortunate enough to live here, and so I am going to quote a couple of paragraphs from the statement of George H. Charls, vice-president of the United Alloy Steel Corporation, in the November issue of the *United Clan*:

"From time to time the propaganda put forth to crush these traditions by those unfriendly to this nation, or by those malcontents at home who are perfectly willing to accept of its hospitality, protection and the rights it affords to all men, has been tremendous, but American ideals and traditions have stood, like the Rock of Gibraltar, unassailable, invulnerable and steadfast.

"Any campaign to break down American ideals and traditions is doomed to failure before it starts, because when the American people awaken to the true facts and understand that destructionists are knocking at our door, they rise in their might to defend these traditions which are so dear to them.

"The history and development of the United States proves that the fathers of the Constitution were not only men of high moral character, but thinking men as well, because of the very thorough manner in which they drafted the laws of this country: laws affording equal rights to the rich and the poor, to people of all creeds and of all nations accepting American citizenship.

"Those citing instances in which the privileges granted by the Constitution have been abused and holding the Constitution responsible for such abuse, are either fooling themselves or deliberately trying to deceive the people, because the Constitution of this country was drafted by men inspired, and their one aim

was to draft a Constitution which should be fair to all, which should make this a government for all the people, irrespective of color, creed or financial standing.

"Therefore, in accordance with the traditions of America, of which we are all justly proud, let us in humility of spirit give thanks and rejoice in festival and song that we are citizens of this wonderful nation, benefitting by its inspired Constitution, living in peace and harmony with all other nations, and enjoying the fruits of the labor of those who have gone on before: getting the most out of life and out of our own labor, determined always to maintain the traditions of this great nation, which has served us so well."

* * *

Bob Kruse—he of the steel furnace and of single disposition—has the following to offer as one of his nine hundred seventy-six reasons for being his own boss:

Hubby was reading aloud — "Three thousand four hundred and twenty-six elephants were needed last year to make billiard balls."

"Isn't it wonderful," said his wife, "that such great beasts can be taught to do such delicate work."

* * *

You may not know it, but E. B. Langenberg, the "Front Ranker" of the National Warm Air Heating and Ventilating Association, is quite a fiend for movie shows; whenever he comes to Chicago I have to go with him to one of those debasing places, for he has a predilection for "blood and thunder" plots. But one evening he declared that he was going to give me a treat and after dinner we wended our way to a "legitimate" theater, without telling me what show was billed.

The theater was full. This was not on account of either the soundness of the play or its popularity, but merely because it happened to

be a first night. Perhaps it was a good thing that it was full on that occasion, because as the performance progressed it became evident that the play would never see a packed house again.

At last things grew so bad that a perfect storm of hissing broke out from all parts of the auditorium. Then suddenly E. B. began to applaud like mad.

His neighbor turned to him angrily.

"What!" he exclaimed. "Have you the nerve to applaud such rot?"

"Certainly not, sir," replied our friend. "I'm clapping the hissing."

* * *

Travers Daniel, Jr., who sells a lot of GiltEdge furnaces in Grand Rapids, Michigan, has a wonderful sense of humor and he also knows good salesmanship, as he practices it himself.

Travers told me the following story and I pass it on for what it's worth:

Doorkeeper at Ku Klux Klan meeting, who answered knock at door—"Don't you know that you cannot join or come in here?"

Jew (who knocked at the door) — "I don't want to come in or join. I want to see the man who buys the sheets."

* * *

Make Men Work with You Instead of for You.

The musical buzz of machines as they whirl
And the drone of their fellows at work,
Spurred on by a human hand—boy, man
or girl,
Gives promise that no one will shirk.

But when, late at night, with a wearisome air
The owner checks over the day,
He finds that the profit, his due, is not there,
Bewildered, just what can he say?

His machines are all good ones and right up to date,
The designs he is using are rare;
His work is all scheduled, the routing is straight,
Then what is the matter in there?

Just this: his equipment is carefully groomed;
He has studied each section with care.
Has he studied each worker? If not, he is doomed,
For the trouble lies mainly right there!

F. W. BASON.

Furnace Installer Has Some Pointed Remarks for Manufacturers to Think of.

Research Is Fine, He Says, But Some Furnaces Ought to Be Junked Before They Are Sold.

IN THE following letter, which comes from a man of more than ordinary ability, both as a business man and as citizen, there are brought out some points that deserve very serious consideration, both by manufacturers and by installers of warm air furnaces, and we are in hopes that while some of the statements in the letter may brush the fur the wrong way on some people, those who really have the interest of the warm air heating industry at heart will act upon the practical suggestions made by the writer in a manner which will bring the results that we are all looking for—a growing recognition of the warm air furnace as the best heating apparatus for residences.

The letter follows:

TO AMERICAN ARTISAN:

In issue of November 8, your article with the figurative title "Is the Warm Air Furnace Business Being Sent on Rocks by Inefficiency?" claimed my attention. I read it thoughtfully and checked both the letter and the editorial comment with observations in my own little cove of activity and, were I not somewhat familiar with conditions in other places, I'd say you lose the debate, Mr. Editor. For here the business cannot be sent on rocks; here no distress signals will be flashed out, because already the story is history and should be found in some volume on shipwrecked businesses. Many of the hulks are yet upon the rocks. Just a few real jobs here and there, ride the waves in safety and stand out like light ships to emphasize the disaster.

Lest you think I'm seasick, will you not come and closely inspect these hulks with me and see for yourself? Then if you think I'm making a storm out of just a little squall down in the bay, I'll listen attentively while you disillusion me.

I do not enter this manufacturers-installers' controversy, prejudiced or pessimistic. I try to bring you facts of a local condition which, it no doubt will develop, is very exceptional. If there is not another like it elsewhere, it undoubtedly has similarities in parts which may be valuable as examples for warning, and along with each example may be in-

"Simplification is needed of the competitive designs and claims that perplex the average installer in making his choice of a furnace. These are manifest in certain arguments about grates, fire pots, radiators and a lot of novel features.

"Manufacturers, in some way, should get together and thrash out the merits and demerits of this competitive stuff and discard the inferior.

"If manufacturers do not do it, dealers may.

"It serves more to cloud the issue than to sell good furnaces."

licated a desirable way out or around if the warning comes too late.

Dirt, soot, smoke and gas, and rooms that will not heat, have queered the furnace game here, and headed heating jobs pell mell for hot water. Here's one of the sort of furnace jobs that have turned the trick: It is a tubular contrivance with thin steel shell radiator fire dome combined, a factory to home product, not locally handled even through a branch.

For identification we will call the firm the X Company. The radiator is so constructed it never can be cleaned to bring it back to its original efficiency as a heater. Common stove-scrapers or the smallest fur-

nace brushes cannot be applied half way around inside it.

Its heat radiating plates must, therefore, carry their insulation of soot year after year. Just enough can be pulled out with specially constructed cleaners to keep the indirect draft from entirely choking up. This condition is highly conducive to rusting out the thin radiator shell in an unusually short while.

In spite of the additional fact that these furnaces were more or less unscientifically installed, with too small heat pipes frequently, and too little cold air return always, much of that sometimes from the basement through a slide opening in the lower casing, nevertheless they were reputed to be "wonderful furnaces as furnaces go," simply because of such numbers of installations rolled up by the X company.

Local firms using more costly furnaces, in feeble competition, following the lines of least resistance—price selling instead of quality selling—sometimes put in worse installations, so that the heritage today is nothing to strive for and is falling to another factory-to-home concern of nationwide operations, reported as already buncoing its trade with the manipulation of grades of furnaces.

To go into all the inefficiencies apparent locally, would be to list examples of almost every wrong in furnace installation. Add to these the itinerant residence janitor whose main idea is to put in coal and take out ashes regardless of how, and the piece-work furnace cleaner, whose chief object is to turn an order booked, into a completed job in as few minutes as possible, and it makes furnace heat here synonymous with house cleaning and decorating. The puzzling thing to me is that I frequently find people enthusiastically boosting furnace heat

while operating one of these rattle-trap installations. If they had real warm air plants they would surely go into ecstasies. It simply shows the possibilities of the industry if it can be controlled by scrupulous and competent installers and manufacturers.

Warm air enthusiasts do not predominate among the new home builders, however. I have spent money to no purpose advertising high grade furnaces and furnace work. I simply get no inquiries except from bargain hunting realtors who think I'm a liar. Or an unfortunate owner of one of these junks of yesterday calls and wants some of that high grade furnace work applied to his plant. In the latter case I try to comply if he has become educated to the fact, or I can educate him to realize that quality cannot be bought at the lowest prices.

Nearly every building of consequence being built here—and some not of consequence—and remodeling jobs are all going to hot water. If I see a heating prospect and propose a warm air plant, I get smiles and polite evasions for the most part, but one or two were so hard boiled about it that each said he wouldn't accept a furnace installation as a gift. His experiences as related were certainly sufficient to establish such an attitude. Personally I do not go deep in the furnace game here. Aside from a few replacement jobs, the remaining furnace trade is left for purely financial reasons. To these buyers, after passing up hot water, which they cannot afford, a furnace is a furnace. They buy the cheapest thing offered, come it from where it may. I look forward hopefully to what the National Warm Air Heating and Ventilating Association may do for a territory like this.

Truly enough, there has been a marked change for the better in the manufacture of furnaces. I have in mind a certain make of furnace in which I cannot find a single fault. It is as far above one of these mail order furnaces as a 21-jewel railroad watch is above one of the 89-

cent pocket time pieces.

Numerous other makes of furnaces thrust forward their claims of superiority so convincingly that I hesitate even in comparison with this perfected type, in making my first choice. In this case it is indicated that simplification is needed of the competitive designs and claims that perplex the average installer in making his choice of a furnace without an engineering college to guide him. These are manifest in certain arguments about grates, fire-pots, radiators, and a lot of novel features.

Manufacturers in some way should get together and thrash out

"The superiority of warm air systems of heating with dependable plants, properly installed by sheet metal men of ability, can be re-established in territories where they have been losing out.

"But it is going to take time, money and sacrifice to do it.

"And the irony of it is that we are striving to retrieve what might, with little effort, have been retained, had quality and a desire to progress inspired both manufacturer and installer, before the advent of the factory - to - home and mail order concerns."

the merits and demerits of this competitive stuff and discard the inferior. If manufacturers do not do it, dealers may. It serves more to cloud the issue than to sell good furnaces.

For instance, if one high grade furnace manufacturer extols his two-piece radiator because it is better than a one-piece, and another high grade manufacturer rests his argument on directly opposite claims of one-piece superiority, their respective agents in trying to make their sales will emphasize these antithetical virtues to the bewilderment of the prospect hearing both agents. After that the prospect is in a fit trim of mind to listen to and be sold on the "quick heating" steel radiator argument for a cheap furnace.

The future furnace must have fewer and more durable pieces in its designing, with no thin steel parts to rust through or warp away from the castings they join, and thus overcome potential gas leaks. It must be fool proof against careless janitors and cleaners by having durable cast iron smoke pipe and clean out collars extending well outside a snug fitting casing.

I think hot water has won its laurels on the dirt issue more than anything else. There is no refuting the fact that a dainty housekeeper will keep her home cleaner and tidier with almost any hot water system than she will with the best warm air furnace on the market if slovenly installed.

The manufacturers of steel furnaces have only one grade. Why do cast furnace manufacturers have two or three? If their best grade is the proper thing, then their other grades must have shortcomings that will not advance warm air heating. I may want to take Jones' "Faultless Heater" and proclaim it to the world while having no use for his second-rater, the "Good Enough Heater" sold for considerably less. After I spend my money advertising the "Jones Faultless Heater" and take especial pains to make my installations worthy of it, and I build up a reputation locally both for Jones and myself, a competitor down the line has a customer to come along wanting a "Jones" furnace and preferring him to install it if he can do it as cheaply or more cheaply. The competitor lights on the "Good Enough Heater"—it always happens that way—and I must go into another expensive advertising campaign identifying my furnace and incidentally showing up Jones to no advantage. If legitimate manufacturers and dealers are to acquire the reputation of manufacturing and installing only the best furnaces, it must be made impossible for some one to get inferior ones through them. Lizzies and Cadillacs are not made in the same plant and when a man buys a Lizzie he doesn't buy it on a Cadillac reputation.

Here is the installer's part. Es-

pecially are these things feasible in rural communities and real small towns not yet invaded with factory-to-home concerns or hot water installers. Don't temporize with your present isolated security. Cover now while the covering is good.

Every local dealer who expects to hold his trade must break away from questionable heaters and inadequate installation methods. With every opportunity presented you should sell your services to completely modernize a defective installation of a good furnace and to replace a junk with an up-to-the-minute heater. Then with the coming of municipal improvements, draining basements, installing sanitary plumbing and making the basement a work shop of the home, there will not be that desire to turn to hot water, nor that warm welcome for the factory-to-home companies that are more skillful with printer's ink than you are. If your ways are bad, and once they put a few installations over you, you are headed for the toboggan.

The cheapest kind of heating stove, even, can be encased as a furnace and piped to give splendid heating results at the start. I have done just such a thing and know, and the factory-to-home companies can do it with their cheap furnaces. After that, an owner adjusts himself unconsciously to a declining plant without realizing it is failing until it is almost a wreck. By that time your business is gone and these competitors so firmly established that it will take several years for the knocks that they will earn and deserve to catch up with and overcome them. This is illustrated by the X company's great run with their product. They caught local installers napping and never awoke them.

Between the local dealer and the National Warm Air Heating and Ventilating Association should be effected state laws licensing warm air heating installers and enabling towns to pass and enforce ordinances regulating such a system of heating. Such ordinances, incorporating the national warm air code, have been

given heretofore in the columns of AMERICAN ARTISAN. Pages of publicity must be bought offsetting the efforts of this cheap competition. The public must be educated to become a discriminating public through the technical exposition of the general principles of warm air heating and the vivid picturing of the typical high grade heater, as differentiated from the low grade factory-to-home and mail order furnaces. An accredited list of manufacturers and dealers and the names of their furnaces should appear from time to time.

The superiority of warm air systems of heating with dependable plants, properly installed by sheet metal men of ability, can be re-established in territories where they have been losing out, but it is going to take time, money and sacrifice to do it. And the irony of it is that we are striving to retrieve what might, with little effort, have been retained, had quality and a desire to progress inspired both the manufacturer and the installer, before the advent of these all devouring factory-to-home and mail order concerns.

ILLINOIS OBSERVER.

Western Warm Air Furnace & Supply Men Will Hold Annual Meeting, December 4 and 5.

Program Indicates That, as Usual, There Will Be Plenty of Things Doing.

IN THE following are given the main features of the program for the annual meeting of the Western Warm Air Furnace and Supply Association, which will be held Thursday and Friday, December 4th and 5th, at Hotel Sherman, Chicago:

Thursday, December 4th.

Call to Order—10 a. m.

President H. W. Symonds' address.

Reading of minutes of previous meeting.

Communications.

Report of Secretary John H. Hussie.

Report of Treasurer John B. Fehlig.

Address—"Doing Business on a Business Basis," by Dr. John P. Wagner, Dowagiac, Michigan.

Address—"Your Association and Ours," by W. C. Markle, Pittsburgh, president National Association Sheet Metal Contractors.

Appointment of committees.

Adjournment for luncheon.

Afternoon Session—2 p. m.

Report of Standardization Committee, by R. W. Menk, chairman.

Discussion of this report.

Report of Furnace Rating Committee, by George Harms, chairman.

Report of Publicity Committee, by Dr. John P. Wagner, chairman.

Report of Auditing Committee.

Banquet—Sherman Hotel, 6:30 p. m.

Admittance by ticket.

Friday, December 5th.

Call to Order—10 a. m.

Start something hour.

Everyone present urged to bring up something that he believes should be discussed.

No rules—no limit at this session.

Report of committees.

Election of officers for ensuing year.

Selection of place of next meeting.

Adjournment.

The Entertainment Committee is composed of three sterling authorities on entertainment for the physical as well as the mental side of man, as J. Harvey Manny, D. E. Cummings and Blair A. Quick, Jr., so we may rest assured that the banquet will be a feast, not only of good things to eat, but also of good things to hear and see.

The following announcement is made by Secretary Hussie:

This is the last call for the annual convention of the Western Association, to be held at the Sherman Hotel, December 4th and 5th. The

meeting will be called to order promptly at 10 a. m. December 4th.

You cannot afford to miss this meeting. Very important business will be transacted.

Thursday evening, December 4th, a banquet, complimentary to our members, will be held at the Sherman Hotel. Both the dinner and the entertainment on this occasion will be well worth attending.

Every member is requested to bring a non-member as a guest. If our association becomes known, others will wish to join.

One and one-third fare for round trip on all railroads from November 29th to December 6th. Be sure to ask your railroad agent for this.

Make a note on your calendar today, and don't forget to reserve a room at the Sherman, at once.

its desirability and efficiency; and the pictures of the homes heated with Homer furnaces with the names and addresses of the owners of these homes.

This is what we call coöordinated effort—a complete demonstration, and, of course, the sales effort brought results—eighteen sold and installed this fall, and more to come.

This company has been selling Homer furnaces four seasons now, and at the beginning of this campaign had 59 installations to their credit—a fact that they made good use of in the window display and the sales talks.

The white ribbons lead from the pictures of the homes to the names of the respective owners, which were printed on slips of paper and pasted on the window glass.

W. M. Scherping, of the Homer Furnace Company, and A. E. Ellis, of the Garden City Furnace Company, planned and executed this very successful campaign.

A ten dollar margin on a furnace installation usually turns into a loss.

Will Window Displays Help to Sell Warm Air Heating Apparatus?

Ask Ellis of the Twin-Named Washington City — He Says One Sold Eighteen.

MANY years ago somebody said that it was easier to teach a man by example than by precept, and he proved his case by—an example, of course—and ever since that has been the rule in salesmanship.

So it is no wonder that when the Garden City Furniture Company, Walla-Walla, Washington, decided to make a special effort this fall to

boost their furnace sales, they followed the same old rule and arranged as part of their selling campaign the window display which is reproduced in the accompanying illustration.

As will be noted, the display consisted of three distinct divisions—the Homer furnace and its principal parts; the advertising posters describing the furnace and featuring



This Window Display Helped to Sell 18 Furnaces This Fall. Arranged by A. E. Ellis, of the Garden City Furniture Company, Walla-Walla, Washington.

Installers Must Write Furnace Advertisements from Standpoint of Reader Interest.

*Nothing Should Be Taken for Granted Where Direct
Sales Are Expected to Result from the Advertising.*

THE warm air furnace advertisement of today must compete with many other advertisements.

The knowledge that the public gets regarding the warm air furnace comes chiefly through paid advertising. As yet the news columns of local papers have in no appreciable extent been commandeered by furnace installers in the way that the automobile dealers have done.

There is a reason for that. Newspapers want news and there are ways of making news from incidents in the warm air furnace.

The accompanying warm air fur-

Likewise the address has been omitted, which should not be done. No matter how well you think people known your location, there are always some with short memories.

The psychology back of the entire ad is rather poor. The balloon type furnace may have advantages over other furnaces by producing better combustion. Nothing is said of this in the ad, however.

The first paragraph of the reading matter is obviously wrong. As a matter of fact a furnace can be installed any time the purchaser wants it done.



Warm Air Furnace Advertisement Appearing in the Decatur, Illinois, Herald.

nace advertisement of the Scovill Company, Decatur, Illinois, taken from the *Herald* of that city, from its construction has evidently been compelled to compete very strongly for attention.

A curious thing about this advertisement is that, although a great deal of time and planning has been spent upon it, there is not one word said about a warm air furnace.

Perhaps the designer of the ad had a purpose in concealing the kind of furnace he was advertising. But we can't see what it could be.

Here the advertiser has taken it for granted that the reader knows what kind of a furnace the Commodore Decatur is. That is a dangerous thing to do.

The second paragraph is obvious, so why waste space?

The only two real points of interest to the reader in the ad are the special price and time payments. These are buried away and the reader has probably lost interest before he gets that far.

Advertisements must be written from the standpoint of the reader first, last and always.

Nominees for Offices of American Society of Heating and Ventilating Engineers Are Announced.

The following have been named by the Committee on Nominations of the American Society of Heating and Ventilating Engineers for 1925:

President—L. A. Harding, Buffalo, New York.

First Vice-President—William H. Driscoll, New York.

Second Vice-President—F. Paul Anderson, Pittsburgh.

Treasurer—Perry West, Newark, New Jersey.

Members of the Council—Homer Addams, New York; Willis H. Carrier, Newark, New Jersey; Joseph A. Cutler, Chicago; Walter E. Gillham, Kansas City, Missouri; W. T. Jones, Boston; Thornton Lewis, Philadelphia; J. H. Walker, Detroit, and Professor A. C. Willard, Urbana, Illinois.

For members of the Committee on Research, which directs the work at the Society's Research Laboratory in Pittsburgh, the nominees are William H. Driscoll, H. M. Hart, C. V. Haynes, J. I. Lyle and Perry West.

Smith Would Like to Know How to Arrange Stock of Furnace and Stove Repairs.

Here is a chance for some of you good Samaritans:

Percy H. Smith, of whose unique business we told on pages 26 and 27 of our November 15th issue, wants to branch out a bit and carry a stock of furnace and stove repairs, and he would like to receive information as to the best way to arrange the stock and keep tab on it. His letter follows:

TO AMERICAN ARTISAN:

Would some of your readers kindly advise how to go about laying in a stock of fire box linings, covers, centers, fire pots and other repairs usually called for; how to prepare a place for the stock; how to assort the stock and keep tab on same; how to know what style of repair for a stove when called for without seeing the stove; whom to buy from and any other information regarding same.

I figure that by putting in such a stock I would be able to give my customer prompter service.

Thanking you and your readers.

Yours truly,

PERCY H. SMITH.

Fulton, Missouri.

Garretson Has Problem of Heating 1-Story Garage Without Basement With Warm Air Furnace.

Owner of Garage Does Not Want Expense of Installing Fan System.

HERE'S a warm air heating job that will tax the ingenuity of the cleverest of the clever furnace installers. If you can solve this, you're good.

The building to be heated is a 1-story garage without a basement. The furnace is to have a specified location in one corner of the work shop.

The work shop is separated from the show room by a partition having two doors.

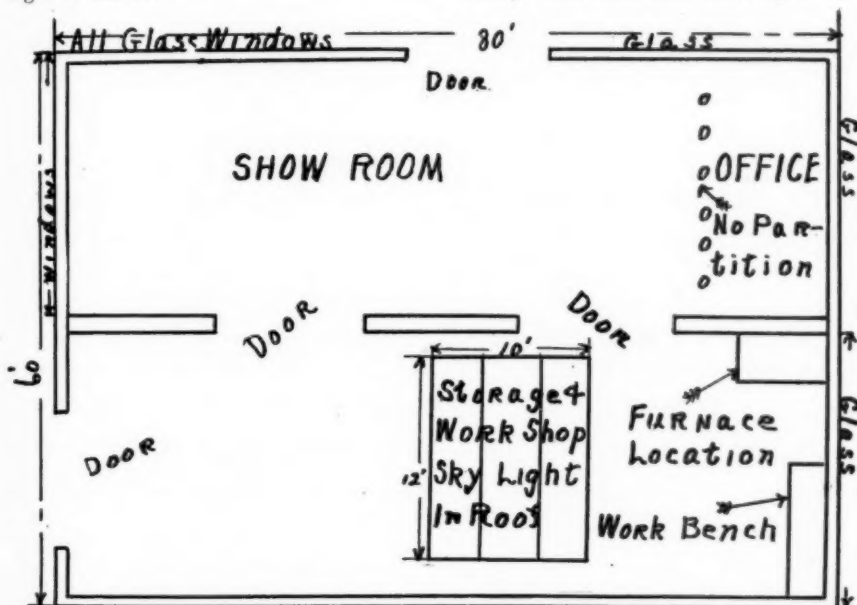
What is the best arrangement and what size furnace will be required?

E. L. GARRETSON.

Williamstown, Pennsylvania.

How the Small Boy Felt When the Back Pages Were Torn Out,

"Heck," said the small boy "just's I gets ta th' part where the hero was closing in on the villain, I find 'Tuffy' has torn out the pages."



Floor Plan of Garage Without Basement. A Plan for a Warm Air Heating System Is Desired.

The show room is glazed as indicated on the accompanying illustration.

Mr. Garretson's letter follows:

TO AMERICAN ARTISAN:

I have a difficult warm air heating problem on my hands.

The building to be heated is a garage and show room, to be heated with one furnace placed in a specified location.

The owner does not wish to incur the expense of installing a fan to force the air.

The building has no basement and has only one floor.

We can sympathize with the small boy, as we often have the same feelings ourselves.

Here's how it happens. The mail man steps into the elevator in our building on Boul. Mich. and is whisked up to our floor. He alights, enters the office of AMERICAN ARTISAN with a large packet of mail—subscription renewals, advertising contracts, and inquiries from subscribers.

We untie the packet and take out all inquiries—furnace installation problems, sheet metal troubles and what not.

We sharpen our pencils, get out our drawing utensils and sit down to see what Mr. Subscriber wants to know.

We read his problem. Our interest heightens the farther we go.

Having read the communication thoroughly, we set out to formulate an answer. And here, Alas! too often we find, literally speaking, that the last page has been torn out. Some of the most important details are missing.

Subscribers, when writing to AMERICAN ARTISAN for information, should aim to give as many of the details of the problem as is possible.

In solving any problem, it is of the utmost importance that all of the facts are known; as it is only under such circumstances that a real, helpful solution can be given.

Send AMERICAN ARTISAN your problems as often as you find it necessary, but give as many of the facts pertaining to the problem as possible. Then you can expect good results.

What Makes the Windows Sweat in This Bungalow?

Some of you "Humidity Cranks" get busy on this problem of Friend Connours, as outlined in the following letter:

TO AMERICAN ARTISAN:

I have a customer for whom I installed a furnace last year. He has complained to me several times because his windows seem to sweat most all the time.

They sweat so that the water just runs down over the wood work on the inside. The house is a six-room bungalow and just heats fine in every respect. The furnace is a No. 42 Athanor and has a cold air return of larger area than all warm air runs taken off.

The basement is dry and the furnace has only the regular vapor pan that is furnished with the furnace and is cut in the second casing about three feet from the floor.

If it is possible for you to give me any information as to the cause and can offer any suggestion so that

I can overcome this trouble, I will be very thankful to you.

Awaiting an early reply, I am yours truly,

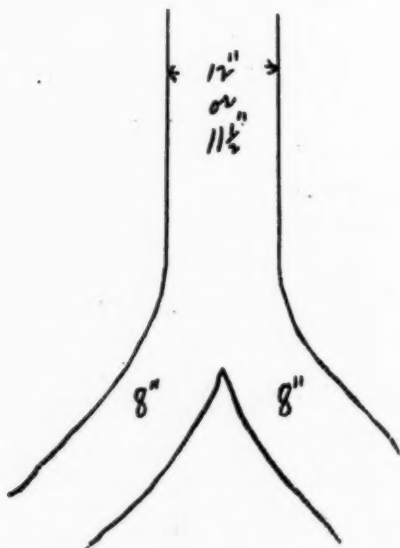
H. E. CONNOURS.

Robinson, Illinois.

Charles Boone Has Not Given Enough Information on His Problem.

Charles E. Boone, Hagerstown, Maryland, found himself in a dilemma with a warm air furnace installation. The owner's trouble lay chiefly in the fact that the furnaces (the installation is a double battery) gas badly when banked at night.

The problem and illustrated plan of the installation appeared on page 19 of our November 22nd issue.



James Charles Allen, Rockford, Illinois, who represents the International Heater Company, and who has had long experience on many different furnace installations, has undertaken a partial explanation of Mr. Boone's difficulties, although he says there is not enough information given.

Mr. Allen's letter follows:

TO AMERICAN ARTISAN:

There are three reasons why a furnace will gas at night. First, the furnace may be checked too much; secondly, it may be caused by the connections to the flue; thirdly, down draft in the chimney will cause trouble, it being too large for the two furnaces, intermittently go-

ing down one connection then the other.

In order fully to get to the root in this case, we should have an elevation and plan of the chimney and furnaces shown. Size of chimney, height, location of furnaces, length of smoke pipe for each, height of basement, is chimney straight or offset, grate area of furnaces, kind of fuel used, and proximity and height of surrounding objects to destroy or affect draft, also type of heating unit on furnace.

If the manufacturer of these furnaces put them on the market with an 8-inch smoke connection, that should be used full size.

Another thing that I don't like

about his installation is the two separate connections to the chimney. I never saw one that worked successfully. A connection like the one shown in the illustration is always a success.

Another connection, which would work if chimney is the proper size and height, is to connect the two smoke pipes into a 11½-inch or 12-inch leader to the chimney, running this with proper elevation to the chimney.

What is given above is all guess work until the problem is put before you in a way showing all conditions.

Yours truly,
JAMES C. ALLEN.

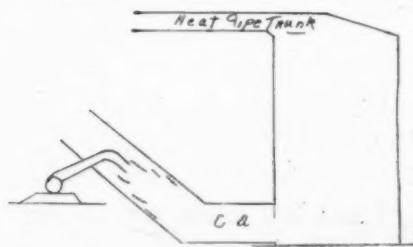
A. C. Presley Says Reinhardt Should Increase Number of Warm Air Ducts to Fifteen.

Says Warm Air Ducts Should Be Covered—Tells How to Install Fan System.

IN OUR issue of November 15th, page 17, there appeared a problem in heating a 3-story, 30-room hotel structure.

In this problem submitted by George Reinhardt, Milwaukee, Wisconsin, the question was asked whether or not the installation could be made work by installing a fan system with which to force the air. How could this be done?

A letter from A. C. Presley, with Holbrook, Merrill & Stetson, San



Francisco, California, gives a solution to the problem.

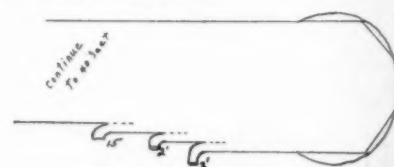
Mr. Presley would cover the warm air ducts. He also believes that the number of ducts should be increased to fifteen.

Mr. Presley's letter, with two diagrams, follows:

TO AMERICAN ARTISAN:

Referring to the George Reinhardt, Milwaukee, Wisconsin, prob-

lem of gravity warm air heating, in your November 15th issue, I shall not attempt to solve the problem by making a layout.



In this section we have many jobs similar to this, i. e., flat pipes, long runs, all off one side of the furnace, so I will show you how we do the job here.

I do not see how you can heat thirty rooms with seven 8-inch pipes, but you seem to have them. I should say fifteen 10-inch pipes would come nearer to it.

Cover these pipes with 3-ply "air cell," bring the cold air shoe in under the heat pipes, install a good size fan circulator. If the rooms are very tight, vent them.

If you are to take out the present heat pipes, I suggest you make a trunk line similar to my diagram. It is important to bring the cold air shoe under the heat pipes. We work here with a temperature of 30 degrees Fahrenheit, which is our cold-

est weather. We frequently run heat pipes forty feet or more.

Yours truly,

A. C. PRESLEY.

With Holbrook, Merrill & Stetson.

Southern Furnace Man Kills Two Birds With One Stone.

All the good ideas in selling do not originate in Chicago, nor in the burg on the Hudson River. In fact, some of the best ones come to light in smaller towns, and frequently in places you would hardly think of.

For instance, one would naturally figure that usual and effective selling ideas for warm air furnaces ought to be developed in the north, where so many furnaces are sold every day almost, but here is one that was devised and proved successful by a sheet metal and furnace installer in Raleigh, North Carolina.

The accompanying illustration really tells the whole story. The Raleigh Roofing and Cornice Company in Raleigh sells Martin's "Jiffy Built" steel garages and Rudy warm air furnaces. They have an office and shop at 107 West Davie Street in that city, but as Raleigh is growing fast and as they could not ex-

pect to induce every prospect to come to their office, they did the next best thing and took the furnace to the prospect. Whenever a subdivision was opened, there went a "Jiffy Built" garage, several Rudy furnaces and a salesman.

And they tell us that sales of both garages and furnaces grew much easier where such "branches" were opened.

They also used the same idea at several fairs in the surrounding territory—all to good effect.

Here Is a Steel Furnace Especially Built for Oil Burning Devices.

The Kruse Company, manufacturers of steel warm air furnaces, have placed on the market a special furnace for oil burning. Two views are shown in the accompanying illustrations.

Figure 1 shows the new furnace from the top and front, and it will be noted that there are two individual radiators with three vertical air tubes in each (larger sizes have additional tubes). These tubes act in a two-fold capacity—as baffles for the gases and as extra radiating surfaces.

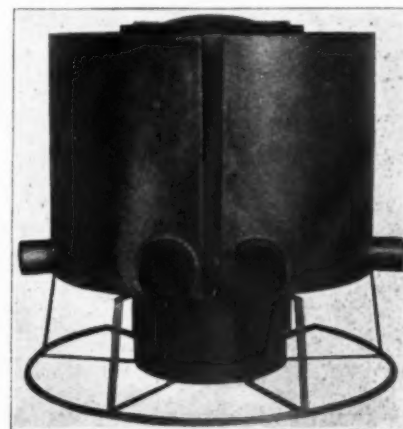
The connecting collars are of standard steel welded construction, and the fire box is lined with fire



Kruse Oil Burning Furnace.

brick from bottom of ash pit to standard height.

The large opening in base will permit the installation of any size of oil burner and is to be left open



Rear View of Kruse Oil Burning Furnace.

or closed according to the type of burner used.

Figure 2 shows the rear view; the two smoke outlets, near the center, are connected, outside of the casing, with a "Y" or "T" into the smoke pipe.

A perfectly splendid sales organization can fade out in considerably less than a generation if its individuals fail to give the necessary attention to training their successors.



Raleigh, North Carolina, Furnace Installer Uses Steel Garage That He Sells as Branch Office for Furnace Sales.

How to Make Folded Corners Properly on Sink and Stand Covers Where Nickel Zinc Is Used.

Several Methods Displayed for Securely Tacking the Edges So as to Prevent Tearing Clothing and Fingers.

THE product, nickel zinc, is very serviceable for household purposes, as for table covering, bread boards, shelves, kitchen sink drainboards, back lining and soda fountain drainboards. The metal to be put on right must be done so with understanding. Nickel zinc is especially adaptable to kitchen tables, cabinet tops or such other kitchen utensils as are used continuously and must be kept in a sanitary condition—it is important that the metal is put on smoothly.

Zinc is a bad metal for having raw edges. It will cut a person before he knows it. For this reason care must be taken to round all corners, to hem all edges in order to prevent them from tearing the fin-

gers or clothes coming in contact with them. At sketch "A" we show a finished corner giving a view how all corners should be made. It is true some workers just bend down the edge, as shown at "B," and nail it on the ends; this is poor workmanship. The under edge is raw and will easily cut dish rags or fingers, and more expensive clothing. Then, too, children always hammer and cut around and such edges would not remain long.

A better way is to hem the edge as at "C" to form a slight drip if it is desired. But a still better method is shown at "D," with the edge hemmed and turned underneath, and nailed with short barb nails. Ordinary tacks are not good for such

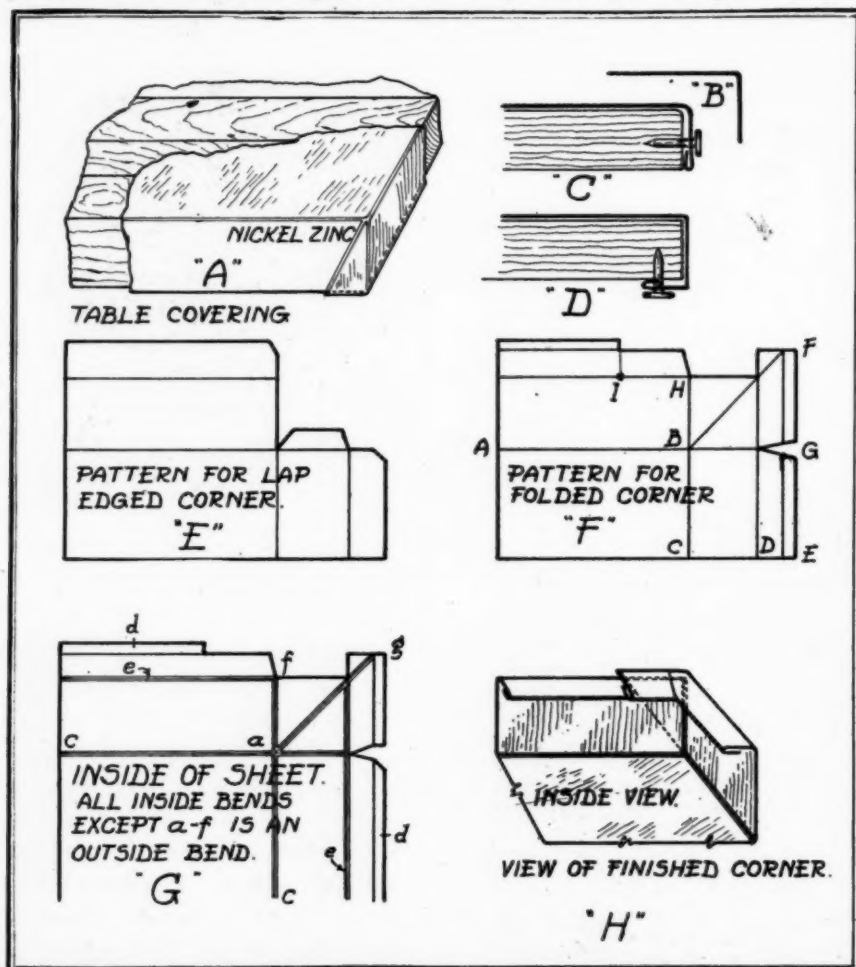
nailing because of the pronounced taper shank, and are, therefore, harder to drive, easier to work out, and the head breaks off too frequently. A short barbed nail of about 1/16-inch diameter is most suitable.

The corners are cut out, lapped and soldered as the pattern "E" shows. This, of course, makes a quick job, and is suitable in many cases, but the corners are seldom rounded, and edges project themselves, so on high-class work it is not recommended. The folded corner is preferable, as shown at "F."

Here A-B-C is the part of the top, while A-D and C-D is the thickness of the table boards, and the distance D-E is the hem and under lap. This permits drawing the lines as shown. Now, in bending such work the brake should be set back to make a rather rounding corner, because they are always better than the perfectly sharp ones. The sheet can be inserted in the brake, bending up the hemmed edge all around; and lifting the blade of the brake slowly. This gives the zinc time to stretch, where a rapid brake will often crack because the metal has not had time to hold together.

After this, bend the metal along lines a-g first, making 90-degree turns; then insert the side C-B; so the edge B-H projects past the end of jaws. This enables bending the line C-B, while B-H will have a long curved bend, which is straightened out again. Now, with pliers, bend the diagonal line B-F quite sharply and as far over as possible, after which, with pliers, bend the line B-H in a reverse manner, that is opposite.

This is shown in drawing "G," where all bends as a-c, c-d, a-g are inside bends, while a-f is an outside bend. When these are brought around by means of flat nosed pliers



Making Folded Corners of Nickel Zinc.

—the lap is produced. But before this is done, the edge -e- should be formed to slightly over a 90-degree in order to hug up closer under the table. After this the corners are laid over and the edge e-d is sprung over the board's edge, and the corners are finished off as shown at "H" Where the corners lap a mallet should be used to rounden the corner, and the lap should be filled

with a thin film of solder.

This will make a very nice job, the nickel surface allows polishing with ease, and offers a harder surface than the plain zinc, is easier to clean, and especially when acidic fluids flow on it, such as salts and vinegar. These latter substances tend to oxidize on the plain zinc, while the nickel surface protects the zinc from oxidizing.

Big Advertising Campaign Started by Roofing Manufacturer Is Worthy of Your Attention.

By Cooperating Whole-Heartedly Sheet Metal Contractor Will Increase His Sales and Profits.

AS MENTIONED in a previous issue, a campaign is being conducted by the United Alloy Steel Corporation among the rural popu-

lation to show the superiority of sheet metal for roofing and siding of farm buildings, which, if followed up by the local sheet metal contrac-

tors, is bound to result in greatly increased business on flat, crimped and corrugated sheets.

One of the strong points of the advertisements which are being run in such publications as the *Country Gentleman* and other farm papers is the advantages of sheet metal as a fire preventive and lightning deflector, as will be noted from the reproduction of two advertisements in the accompanying illustration.

In connection with the farm paper advertising the United Alloy Steel Corporation has issued a booklet full of interesting and practical information on lightning protection. Copies of this booklet will be gladly supplied to any one interested and a supply properly imprinted will be sent to dealers in Toncan roofing for distributions among their customers.



What are you afraid of?

This man has no fear of lightning and fire. He sits through the storm knowing his family, his stock and buildings are safe. Roofing and siding are water-proof—fire-proof and lightning-proof. Some farmer's barn or house will be struck by lightning and burned tomorrow—next week—and next year. The annual loss is tremendous. Yet do not forget that it is made up of individual losses.

You can protect yourself. If the roofs and sides of your buildings are metal covered. If they are of wood or other combustible materials, then you are at the mercy of every storm that comes up. And it isn't just a matter of any metal roof. You should use galvanized Toncan Metal roof, which is pure iron alloyed with copper and zinc coated—a rust-resisting lightning-conducting metal good for years and years of service.

Don't let this loss be yours. Let us send you a free book which tells all you need to know about protecting your home, your family and your belongings. This free book tells you how to measure for metal roofing and siding, about how much it will cost for roofing and siding, how you can save on insurance, and all you need to know to get protection from lightning and fire. Just fill in the coupon and send it to us and by return mail this free book will come to you. It will give you lots of interesting information you should have as well as the simple, direct way to lightning protection.

UNITED ALLOY STEEL CORPORATION
CANTON, OHIO

FILL IN . . . YEAR OFF . . . AND MAIL

United Alloy Steel Corporation, Canton, Ohio.

Please send me your free book on lightning protection.

Name

Address

Town

I will please send them (Amount)

(Address)



Send for this FREE Book

It tells you how to protect your barn, your buildings and your home from the menace of lightning, fire and storm.

If your buildings are roofed with wood or other combustible roofings, by all means read this book. Even if you have metal roofs, send for the book.

For it tells you of Toncan Metal, which is pure iron, alloyed with copper, heavily coated with zinc. This combination makes a rust-resisting, lightning-proof, fire-proof roofing and siding that will protect life and property for you for many long years.

Tells you how to measure

In this book you will find instructions for measuring a building to find out how much metal would cover it and the kind of metal you should use. It will give you approximate cost of materials and also tell you how you can save money on fire insurance.

Full of information you should have

There are pictures and descriptions that are of intense interest to any man who intends to repair, remodel or build. But, above all, it shows you how to keep your barn, stock machinery and family—safe from the twin perils of lightning and fire. Mail a coupon and we will send you your free book.

UNITED ALLOY STEEL CORPORATION
Canton, Ohio



Made by the oldest and largest producers of high grade alloy metal

Mail this for FREE Book

UNITED ALLOY STEEL CORP., Canton, Ohio

C. J. J.

Your "Protection" book.

al from (Name)

al from (Name)

al from (Name)

Jones Wants Rule for Laying Out Roof Collar for Safety Flue.

C. R. Jones, Williamsport, Pennsylvania, in constructing a safety flue in the roof of a building, found that he had forgotten the rule for laying out the collar to fit the roof.

He asks some brother to supply him with this much needed data as follows:

TO AMERICAN ARTISAN:

Will you kindly give me the rule for laying out the collar surrounding a safety flue passing through the roof?

Yours truly,
C. R. JONES.

Williamsport, Pennsylvania.

Hur-Rah! Here Is Another Opportunity for Sheet Metal Men.

From El Paso, Texas, comes the following report:

"Fields in Western Texas are being closed in by mile after mile of tin fence, six inches high. These tin fences have proved the best defense against the invasion of grasshoppers.

"The insects are able to jump no higher than five inches from the

Two Advertisements in Farm Papers Extolling Merits of Toncan Metal as Fire Preventive.

ground and are unable to clear the fencing."

It is to be hoped that the erection of these miles of fences will be kept as a distinct field for the sheet metal

contractors. First thing, you know, the carpenters will claim jurisdiction because the converted tin cans must presumably be nailed on wooden posts.

Copper Industry Has Grown From Small Beginning to Great Proportions in Short Time.

One-Eighth More Copper Used for Building Purposes in 1924 Than in Any Previous Year—Mostly for Roofing

THERE is considerable useful information for the progressive sheet metal contractor in the address which George A. Sloan, of the Copper and Brass Research Association, recently delivered before the Purchasing Agents' Association and which is published in part herewith:

Copper—A Metal of Commerce.

So far as historians have been able to ascertain, copper, the oldest metal of commerce, was mined and used by man prior to the reign of Menes, the first Egyptian king, which was about 5500 B. C. At the best we have only meager Egyptian records and brief references contained in the Scriptures. From its native state of reddish rock, copper was first made into a battle mallet, and we can easily imagine its use almost simultaneously as a metal of peace. Modern excavations prove that copper was first melted prior to 3500 B. C. Thus in the early days of civilization we have metallurgy as a science.

Archaeologists and metallurgists differ as to how the first alloy, copper and tin, came about, but we do know that bronze was the first metallic compound, and so extensive was its use that the epoch is known in history as the "Bronze Age." Brass was not to follow bronze for several thousand years, for it was in the sixteenth century A. D. that zinc was first found in its free state and used as an alloy with copper.

Long before America was settled by the white man copper had been mined and used by cliff dwellers and Indians, but with the coming of Columbus and other explorers, copper mining was begun in earnest by

some of our earliest settlers. It did not become a real industry with us, however, until the Lake Superior district, covering some seventy square miles, was developed in 1844, followed by discoveries in Butte, Montana, in 1882 and shortly after in Arizona, New Mexico, Nevada, California, and finally, in 1900, the discovery and development of the great porphyry mines in Utah. In 1901, Alaska first came into the field of copper producers, supplying 250,000 pounds that year. Twenty years later we find Alaska's annual production very close to 100,000,000 pounds.

Today the United States is foremost among the nations of the world in copper production while Chile, ranking second, contains the largest mine and the greatest known copper reserves in the world, which are largely American owned. First among our states is Arizona, with its famous Copper Queen, the largest single contributor to that state's total production. Butte, Montana, is the largest single producing territory in America, having supplied more than one-quarter of the total amount of copper mined in this country to date. Another outstanding mine is the mountain of copper at Bingham, Utah.

Prior to the World War the consumption of copper in the United States had never touched a billion pounds, and, although there was a tremendous increase to meet the military necessities between 1914 and 1919, we find that domestic consumption during the past year of 1923 was far in excess of any previous normal year uninfluenced by war or inflation.

The consumption of copper in the United States for 1921 was 917,670,000 pounds, in 1922 1,074,525,000 pounds and in 1923 1,465,900,000 pounds. For the first six months of the current year, 1924, there has been an increase of 10 per cent in domestic consumption over the corresponding period of the record breaking year of 1923, and there is every evidence that this ratio of increase will be maintained, if not exceeded, during the last six months of this year, establishing a new high record.

This is attributable largely to a 25 per cent increase in the use of copper in the electrical industry, and a 12½ per cent increase in building construction consisting chiefly of copper roofing and brass pipe plumbing.

Copper for Roofing.

With America building for permanence, there is an increasing amount of copper and its alloys used in the building field. Because of its non-rusting qualities and long life, copper is the best known metal for roofing. In the Orient some of the temples have been roofed with copper for three and four centuries, while in this country Christ Church in Philadelphia and Trinity Church in New York city offer two striking examples of the durability of the metal. The copper roof on the former was applied 15 years ago, and on the latter 75 years ago, there having been practically no expenditures for repairs in either instance. Leaders, gutters, flashings and downspouts are being more and more made of copper; this obviates the necessity of replacing other kinds of sheet metal that rust out in a comparatively short time.

The Grand Central Station of New York city is an interesting example of the amount of copper consumed in a large building representing a total tonnage of 2,718,000 pounds. In the construction of the Equitable Building of New York city, the largest office building in the world, approximately 2,000,000 pounds of copper were used.

The Copper and Brass Research Association was formed three years

ago by the leading copper mining companies and brass fabricators of America for the purpose of advancing the knowledge and uses of copper, brass and bronze. In order to accomplish this we have conducted an extensive national campaign of advertising and publicity. In addition to this purely educational effort, we maintain a highly trained technical staff which is engaged in finding new uses for our metals, in improving existing uses wherever possible and in answering the countless inquiries of a technical nature that reach us daily. This latter service is encouraged in every possible manner for it is not only proving of real help to the consumers of our metals, but of utmost value to the industry.

Active Dealer Coöperation.

One of the most important and interesting developments in connection with the association's work has been that of "dealer coöperation." During the past two years we have blanketed the country with literature for dealer distribution which was directly tied up with our national advertising in newspapers and magazines. The dealer in turn sent this literature to prospective home owners. In 1923, 4,900 sheet metal contractors, 7,800 hardware dealers and 6,500 manufacturers and other dealers requested and distributed our literature, consisting of about twenty booklets and folders covering the application of our metals, principally in building construction. In all we mailed out 12,690,000 pieces of literature last year.

In order to ascertain the true value of our service and the practical results obtained, we recently mailed letters, including a questionnaire, to some 2,000 dealers. The most important question asked was to what extent, if any, did our literature increase their sales. Approximately 50 per cent of these dealers replied, 210 of whom gave definite figures showing an average increase of 56 per cent in their 1924 sales over 1923, 38 stated they had sold more than ever before and 219 reported an increased business for 1924. Ninety per cent of these dealers, in

replying, anticipated a further increase in 1925. This, to us, is highly significant in that it is indicative of an unlimited field for practical

service and deserving of a further concentrated effort in its development—and we are planning to continue our work on a greater scale.

Iowa Sheet Metal Auxiliary Members Will Make 1925 Convention Success.

Plans Now Being Made for State Convention of Sheet Metal Contractors.

THEY have a live bunch of fellows in the Iowa Sheet Metal Contractors' Association, and the boys in the Auxiliary are just as live, as witness the following letter from Bill Koenneman, Secretary of the Auxiliary:

"At the Randolph Hotel, Des Moines, on November 8th, a meeting of the officers and members of the Auxiliary was called to order at 2 p. m. for the express purpose of laying plans for the next state convention. The meeting was very well attended, all officers being present with the exception of one, who found it impossible to attend. We heard from him by letter, so we feel that he was with us in spirit.

"This was one of the best meetings which we have had this year, and for the benefit of the Auxiliary members who were not present, would say they missed a very interesting meeting.

"Mr. Will Thomson, Secretary of the Iowa Sheet Metal Contractors' Association, sent us an application for membership in the Auxiliary with check attached on Paul Fischedick. Mr. Fischedick is with Follansbee Brother Company, of Milwaukee, Wisconsin. On behalf of the Auxiliary we wish to welcome you, Mr. Fischedick, into our organization, and we trust you will avail yourself of the opportunity every member of our Auxiliary has to be a builder and use every opportunity to put sheet metal and warm air heating on the high standard where it belongs.

"The reports of the secretary and treasurer were read and accepted. Report from the Membership Committee was read by C. F. Anderson and accepted.

"Louis Roos was appointed chairman of the Entertainment Committee, and will appoint his co-workers. So, fellows, if there is anyone of you called upon to help him, or to act on the program given at our next annual convention, don't be a shirker, but be a doer. We want to make this the best convention we ever held.

"If anyone who reads this letter has any suggestions, send them in, and if we can use them we will be glad to do so.

"We now have a membership of 87 members. If each one of us would get only one member each for the Iowa State Association, they would have 87 more members, working to push their own business and helping to put the industry as a whole on that high standard to which every sheet metal man and salesman could point with pride.

Fellows, we are in the most important business there is, but most of us don't know it.

"What's a home without heat?

"What's a home without sheet metal protection?

"Think this over seriously. Then look into the mirror and say to yourself, 'My business is just as important as the banker's, because I make it possible for him to have all the comforts that he enjoys in his home. Why shouldn't he respect me?' Fellows, when you can honestly say these things to yourself, you will be living and enjoying life on a different basis.

"Personally, fellows, I can't recall any big success made, except it was done on a quality basis. The trouble has been that every man tries to meet the other fellow's price. What is the result? The price gets

\$100.00 in Cash Prizes

COOPERATING with the National Association of Sheet Metal Contractors, the Copper and Brass Industry, in their campaign to increase the use of sheet metal, we are offering a contest of prizes, totaling \$100.00, for the best photographs and descriptions of work.

FIRST PRIZE

\$50.00

SECOND PRIZE

\$25.00

FOUR CASH PRIZES

for photographs and descriptions of work, such as Ceilings, etc., especially featuring unusual or unusually long service or exceptional circumstances.

RULES OF CONTEST

THE contest is open to everybody except employees of AMERICAN ARTISAN AND HARDWARE RECORD. Photographs must be securely wrapped and marked "AMERICAN ARTISAN AND HARDWARE RECORD" and sent to 620 S. Michigan Avenue, Chicago.

WITH each photograph must be enclosed a description giving the name of the sheet metal contractor who installed the work; the kind of sheet metal used; the circumstances under which it was done, as for example when sheet metal replaced any other material; also such other information as may be of interest.

THE CONTEST WILL CLOSE

No photographs received later than midnight of March 15, 1925, will be considered. All photographs entered in this contest will be considered the property of AMERICAN ARTISAN AND HARDWARE RECORD in each case, and all will be subject to reproduction in AMERICAN ARTISAN AND HARDWARE RECORD for other purposes.

AMERICAN ARTISAN AND HARDWARE RECORD

620 S. Michigan Avenue

Good Sheet Metal Work

Sheet Metal Contractors, the Sheet Steel Trade Exchange Association and the American Zinc Institute, in building purposes, AMERICAN ARTISAN offers a series of descriptions of sheet metal work, as follows:

PRIZES

of Metal Roofs, Cornices, installations that have given good service under excep-

THIRD PRIZE

\$15.00

FOURTH PRIZE

\$10.00

CONTEST

AMERICAN, and any number of photographs may be submitted by any contestant, and addressed to AMERICAN ARTISAN, 620 South

No mark of identification must appear on the photographs except a "key name," the duplicate of which must be enclosed in a separate envelope, together with the name and address of the contestant. No limit on the number of photographs submitted, but all must be identified as noted here.

LOSE MARCH 15, 1925

will be considered in making the award.

AMERICAN ARTISAN, unless otherwise provided for by the contestant in its campaign to increase the use of sheet metal for building and

AMERICAN ARTISAN AND HARDWARE RECORD

Chicago, Illinois

so low that if you get it you either lose money on the job or your profit is so low it is impossible for you to give your family what they are entitled to.

"The Auxiliary will be glad to do anything that is legitimate to bring about better conditions for the sheet metal men of this state. In order

to accomplish these things the sheet metal men must coöperate with us. Let's try and make 1925 one of the best years we ever had. Your prosperity will be as you think it.

"With kindest regards to the sheet metal men and members of the Auxiliary.

"BILL KOENNEMAN."

Rubber Company, who was elected Vice-president.

Where Is E. G. Bernard Company Located?

TO AMERICAN ARTISAN:

Kindly oblige us with the address of the E. G. Bernard Company, manufacturers of plating generators or dynamos.

Yours very truly,
SUBSCRIBER.

Pittsburgh Apprentice Training School Plan Is Used as Model by Other Cities.

Union and Contractors' Association Renew Agreement With Carnegie Institute of Technology.

CONTINUING the coöperative plan effective a year ago between the Sheet Metal Contractors' Association of Pittsburgh and Local Union Number 12 of the Amalgamated Sheet Metal Workers' International Alliance, approximately 65 sheet metal apprentices will attend classes one day a week during the coming year at Carnegie Institute of Technology, in Pittsburgh, according to a report from the institute authorities. For the coming year, also, it is reported, the employers have again agreed to pay the apprentices their full day's wages while they are attending classes, and the union officials will again assume the responsibility of compelling the apprentices to attend the classes.

Since the time a year ago when the effecting of these two agreements at Carnegie Tech were announced, labor union organizations and employers' association have joined hands in several cities in order to make agreements similar to those now in operation at Carnegie Tech. Both Dr. Connelley, director of industrial relations, and President Thomas S. Baker, who has taken an active interest in the apprentice training movements, predict that the current year will see many such plans effected throughout the country.

Among the novel and somewhat radical terms of the agreement in the contract this year between the Local Sheet Metal Workers' Union and the Pittsburgh Sheet Metal Contractors' Association for the

training of apprentices is the stipulation that every apprentice attached to the union "must and shall attend sheet metal classes at Carnegie Institute of Technology the last four years of his apprenticeship, or until he has finished the course for sheet metal apprentices." The extent of coöperation to which the employers have committed themselves to assist in the training is recorded in the section of the agreement which says: "The employer shall send the apprentices to the Carnegie Institute of Technology for trade instruction one day each week from October 1 to May 1 during the last four years of his apprenticeship. The apprentice shall be allowed his regular wage while attending school."

The course of instruction includes geometrical drawing, mathematics, pattern drafting, and shop practice. Each apprentice pays his own tuition fee, which is rated according to the fees charged for the night courses of similar scope.

C. F. Beatty Is Elected to Board of Directors of Association National Advertisers.

C. F. Beatty, Advertising Manager of The New Jersey Zinc Company, was elected a Director of the Association of National Advertisers, at the Atlantic City convention, held at the Hotel Ambassador, November 17, 18 and 19. Mr. Beatty will fill the unexpired term of Ralph Starr Butler, of the United States

Here's a Chance to Help a Worthy Cause.

Down in Mississippi there is a trade school for colored people which was started in 1909 on a very small basis, but which has grown to an institution with a faculty of eighteen and an enrollment of over 300 students.

They want to start a sheet metal department and need some tools, but like most of these schools are short of money, so that they are unable to pay full price for new tools, so they have asked us to place their requirements before our friends, as per the following letter:

TO AMERICAN ARTISAN:

We have just sent a list of tools to the Cutler Hardware Company to see if they could supply us with same. They have very kindly referred us to you. Will you kindly tell us if you know of any one having such a set of tools?

We thought maybe we might buy them really cheap, or receive a donation of same.

Hoping to hear from you soon regarding this matter, we are

LAWRENCE C. JONES,
Principal,

The Piney Woods Country Life School.

Braxton, Mississippi.

* * *

The school is vouched for by prominent bankers and business men in Braxton, Jackson and Vicksburg, Mississippi, and here is the list of tools desired:

- 1—Beakhorn stake.
- 1—Blowhorn stake.

- 1—Common square.
- 1—Seaming stake with four heads.
- 1—Hollow mandril.
- 1—Wright's pipe folder.
- 1—Forming roll, length 30 inches.
- 3—2¼x5¼ common round tinner's mallets.
- 1—No. O hand grooving tool.

- 1—No. 3 Hand grooving tool.
- 1—Small burring machine.
- 1—Small Turner machine.
- 1—Small wiring machine.
- 1—Beading machine, four pairs of rolls.
- 1—Machine standard to fit above machine.
- 1—Keystone bar folder.

Michigan Architectural Service Board Is Doing Fine Work for Contractors.

Standard Sheet Metal Specifications Will Be Published Shortly and Placed With Every Architect.

THE regular monthly meeting of the Architectural Service Board of the Michigan Sheet Metal and Roofing Contractors' Association will be held in Detroit, Wednesday afternoon, December 3rd, in the offices of the Detroit association, 810 Donovan Building. The meeting will be in charge of Chairman Lon Shouldice of Battle Creek, and will start promptly at 2 o'clock, eastern time.

Mr. Shouldice states that the standard specifications which have been under consideration for the past few months are now nearly completed and he hopes that by the time of this meeting they be entirely done so that final adoption may be made at this time.

As soon as this work is completed it will be printed and placed in loose leaf form in a very fine binder and two copies will be delivered to each architect and engineer in the state.

It is further proposed to maintain a permanent service for architects and engineers for the solution of difficult sheet metal problems which are out of the ordinary and not included in the general specification book. This service will be rendered by the state secretary and D. M. Marshall, secretary of the Detroit association.

The purpose of this work is to standardize sheet metal construction methods, so the completed jobs will be more permanent, which will naturally be a benefit to the sheet metal industry.

In addition to the regular mem-

bers of the board all members of the state association may attend this meeting and it is expected that many from Detroit will be on hand to help complete this work.

Following the afternoon meeting a joint meeting of state members and Detroit will be held at the Elks' Club. A banquet will precede that meeting.

What Is the Attitude of Your Clerks Toward Customers?

A clerk with an ungovernable temper can be of little use to a store where the goods are displayed and sold across the counter. Courtesy, patience and toleration are attributes which every salesman, if he does not possess them naturally, must aim to cultivate. No salesman can hope to make a success of his job, which means making a profit for the boss, unless he takes the trouble to cultivate good will while the golden opportunity is before him—while he is in contact with a customer.

The salesman meeting people over the counter has it within his power to build good will or to drive trade away from the store by his attitude. Therefore, it behooves him, if he values his job, to make the most of it when opportunity is ripe.

Courtesy costs nothing. It begets confidence and makes work a pleasure.

Let us help you with your shop problems.

Notes and Queries

Address of Keeley Stove Company.

From Louis A. Norlund, 1201 North Mill Street, Pontiac, Illinois.

Will you kindly advise me where the Keeley Stove Company is located?

Ans.—Columbia, Pennsylvania.

Furnace Fans.

From Seeger Sheet Metal and Furnace Works, 660 Third Street, Milwaukee, Wisconsin.

Who makes fans for installing in cold air pipes for furnaces?

Ans.—Domestic Appliance Company, 6539 Euclid Avenue, Cleveland, Ohio; Dowagiac Manufacturing Company, Dowagiac, Michigan, and Honeywell Heating Specialties Company, Wabash, Indiana.

Adjustable Jacks for Scaffolding.

From Hanbury Sheet Metal Works, 512 West Eighth Street, Des Moines, Iowa.

Can you tell us who makes adjustable jacks for scaffolding?

Ans.—Richards - Wilcox Manufacturing Company, Aurora, Illinois, and John S. Tilley Ladders Company, Incorporated, Watervliet, New York.

Granulated Solder.

From W. A. Yaeger, 448½ Main Street, Ashtabula, Ohio.

I should like to know who makes solder in a granulated form.

Ans.—Special Chemicals Company, Highland Park, Illinois.

Electric Floor Sander.

From John J. Walter, 104-6 West Main Street, New Albany, Indiana.

Can you tell me who makes an electric floor sander?

Ans.—Electric Rotary Machine Company, 3825 West Lake Street, and M. L. Schlueter, 225 West Illinois Street, both of Chicago, Illinois; also Kelley Electric Machine Company, 111 Dearborn Street, Buffalo, New York.

Black Enamel.

From Southwick Metal Company, 1913 State Street, Granite City, Illinois.

Please advise us who makes a black enamel to be used for dipping register faces.

Ans.—William Connors Paint Manufacturing Company, 140 South Dearborn Street, Chicago, Illinois, and Troy, New York, and Pecora Paint Company, 4th and Sedgely, Philadelphia, Pennsylvania.

Cutlery Gifts for Dad and Mother Correctly Arranged in Hardware Store Window.

Window Brought Good Results for J. J. Snyder & Son, Inc., Brooklyn, New York.

THE accompanying illustration is that of a Robeson "Shur Edge" cutlery window display, representing presents for mother and dad.

This display consists of the Robeson "Shur Edge" cutlery signs with a display box covered with holly paper in front of each.

There are three carving sets, two razor strops and pocket knives on the left side. In the center there

The front of the window has green rope effect paper looped across. The floor is covered with green crepe paper and a red border.

The display was made by Gustave J Derse for J. J. Snyder, Inc., 2254 Bedford Avenue, Brooklyn, New York.

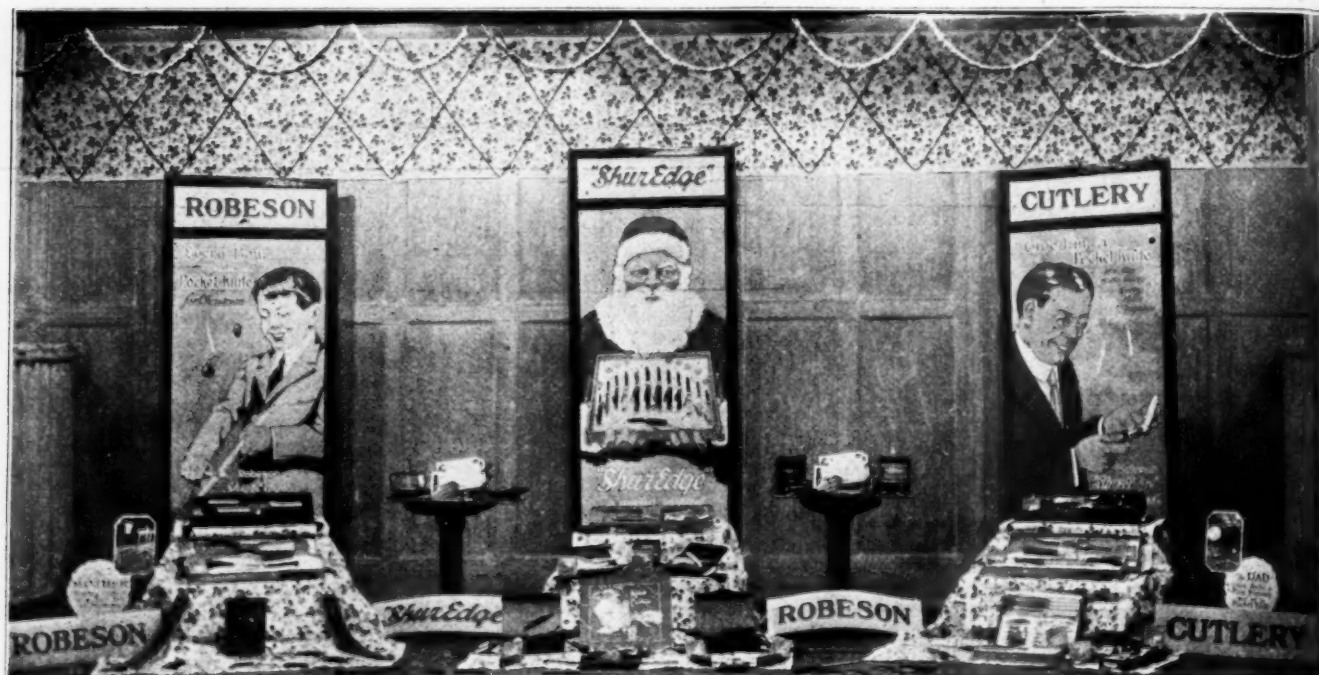
The display itself, as can be readily seen, was a very inexpensive, but

men as they make their rounds and gather much valuable information on how to make good displays.

Every clerk in the store should be encouraged to submit ideas for making displays.

Windows should be changed frequently and they must be timely or seasonable.

No one is interested in hay forks after the haying season is over.



Cutlery Gift Display of J. J. Snyder & Son, Inc., 2254 Bedford Avenue, Brooklyn, New York, Embodying the Fundamentals of Correct Window Display Making.

are three carving sets, razors, hair clippers and manicure sets.

There are two pedestals on each side of the center display, covered with red crepe paper displaying safety razors. On the right there are three carving sets, one set of stainless steel knives and forks, also a set of stainless carvers.

In the front of the window there are various stainless steel slicing and paring knives. There are four Robeson signs on the floor. The top of the window back is covered with holly paper and red and green cord in diamond shape.

nevertheless attractive piece of work.

It represents the use of a little forethought and a judicious use of the materials for making window displays sent out upon request by most manufacturers.

The salesmen of these same manufacturers are often found only too willing to show a clerk or the proprietor himself how to best arrange these displays.

By far the best results can be attained by assigning the job of decorating the window to some reliable clerk. He will waylay the sales-

The people naturally look to the store windows to keep them informed on changes in styles and seasons.

Make your window displays harbingers of the approach of each new season. Also make them representatives of what is "being done." In that way you will soon get people into the habit of looking to your store for leadership and guidance in such matters.

There are just three sides to every question. Your side, the other fellow's side, and the right side.

You Stand to Win \$50! Prepare to Enter Your Photos in Our Window Display Competition.

Three Other Attractive Prizes and Many Honorable Mentions Are Also Being Offered.

OUTSTANDING controverted points on window displays are two in number.

Few hardware conventions are held that do not have on their programs talks on window displays. These invariably terminate in a deadlock regarding the advisability of putting price tags on the articles displayed.

The number of articles that can be profitably placed in any one window is the second point on which great disagreement exists.

It so happens, however, that a peculiar relationship maintains between the two subjects.

We all know that the fewer articles there are in the window the greater becomes the concentration upon those few articles. Then, too, it is much easier to arrange a background which will not detract attention from the display with only a few articles.

From this we would naturally infer that the window in which fewer articles are displayed must be changed more frequently. This reasoning brings so many retailers into the fallacy of thinking they would save time and money by displaying a large number of articles at once.

This brings us to the consideration of the price tag.

Where the price tag is omitted the observer of the article in the window nine times out of ten takes it for granted that the price is excessively high; that if the article carried the price, the window shopper would be frightened away. But without the price given they are obliged to enter the store where the salesman has a chance to convince the buyer of the value of the articles.

Having many articles in the window means that some additional force must be exerted to insure specific concentration; that is, to insure that the window shopper will

stop long enough to see all of the articles displayed. Here is where the price tag does its work.

However, it has been found also that when people fully understand the true value of the article and have been thoroughly imbued with a desire for possession, the price becomes a secondary consideration.

Some Observations on Advertising That the Small Retailer Should Know.

All Advertising Campaigns Should Be Planned as Wholes and Sales Arguments Properly Presented.

ADVERTISING should be done consistently, if at all. The retail merchant should plan a campaign as a whole. Every merchant must make himself known in order to conduct a profitable business. This is done in many ways, the greater part of which is described as "publicity," and of all these ways, advertising is the most effective.

Although every repetition of an advertisement, a circular or a letter costs money, occasional, hit-or-miss advertising, is usually a loss; whereas steady advertising of the right kind is sure to be productive. The retailer whose business justifies advertising in newspapers will do better to run a small advertisement every day than to run a large one once a week.

This principle applies to all forms of publicity. If form letters are sent out, it is best to send them regularly; if hand bills are broadcast, it is best to broadcast them regularly; if window advertising is used, the displays should be constant and changed frequently. Never let the public forget you. Never give even your old established customers a chance to forget you, your store, your goods.

There are two points to remember in this connection: Your advertis-

ing campaign, whatever it consists of, should be planned as a whole; do not get out several booklets, letters or circulars and then discover you are not presenting your arguments in proper order or that you have neglected the seasonal influences or something else.

Also, if you are advertising in a publication, call attention to that advertising in any circulars you get out, so as to tie the two together. Use some such phrase as "Watch our weekly price lists in the Courier."

The other point is to identify your store through a border, a trademark, an illustration or a signature, so that every advertisement, every letter, every hand bill, every delivery wagon and every piece of wrapping material will have some easily recognized mark which will remind the observer of all other ads of your store. Tie your ads together. Note how the large advertisers use a trademark, a phrase or a picture to focus attention.

At certain seasons and for certain offerings of merchandise, advertising announcements should appear more frequently than usual. Whatever the season, the goods or the medium used, be consistent—do not have spasms of advertising.

Instructing the Window Display Maker in the Proper Use of Top and Side Lights.*

*Passer-by More Susceptible to Displays at Night
Because They Are Usually Pleasure Bent.*

BACK in the good old days when Benjamin Franklin was a storekeeper, there was nothing to do at dusk but close up shop and board up the windows. Strolling about the dimly lighted thoroughfares had but little interest and was an adventurous business, so it mattered little that the colonial storekeeper boarded up his windows for the night and hid his wares from the scrutiny of the possible passerby.

But unlike the proverbial leopard's spots, our social and business conditions have greatly changed. Let us digress for a moment to re-

mood. The business and home cares as a rule are over for the day; again, because of the darkness, less is seen, and, therefore, less occupies the mind; also because the people, as a rule, are on pleasure bent.

The enormous advertising value of the show window is not to be doubted. During the day anyone will stop at an attractive window, and at night a well-lighted window compels attention because of its contrast against the relatively surrounding darkness.

It is obvious that the space apportioned to a window represents

traveling men with a feeling that the locality or town is progressive and prosperous.

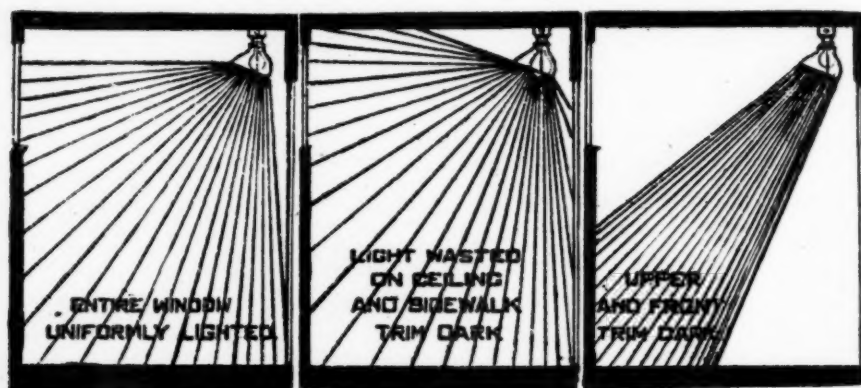
A window is in reality a stage setting, and the lighting source should be concealed from vision, in order not to give discomfort to the observer, or attract his attention from the display.

Legislation has already been passed in several states, definitely covering the type of lighting equipment which is acceptable from a standpoint of glare, and it is only a matter of time when the practice of having bare lamps in windows, in order to attract attention by their glare, will be prohibited in the interest of conservation of vision.

A lamp should never be placed directly outside a window. It seems the desire of some of our merchants to attract attention by having the sidewalk brightly lighted. This class of lighting cannot light the goods effectively, and even when used in conjunction with window lighting detracts from the display because it prevents an absence of contrast of a well-lighted window against the darkness.

Careful consideration must be given the several factors necessary to bring about the desired results. The lighting should be placed in the upper front part of the window and should be directed on the display by the properly contoured reflectors designed in order to produce the proper diffusion and which do not permit the light to be wasted on the ceiling or escape into the street. A number of units with smaller lamps, rather than one unit with a large lamp, is correct in order not to produce objectionable shadows.

The intensity of the lighting depends first on the character of goods displayed. It is well known that we see things by the light reflected from them to the eye and consequently dark goods reflecting less light than white goods demand more light in order not to appear dim. Secondly—on the surrounding conditions. In the larger business centers with high intensity lighting from street lamps, windows and electric signs, more light is necessary in order to make



call to mind the laboratory tests of the effect of light on the lower organisms. When the light was turned on, these lower forms of life were attracted to it, and likewise repelled by the darkness or cold rays, and humans are much different in this respect. Compare, if you will, the main business streets of today with high intensity street lighting, the brightly lighted windows, the moving picture parlors and the crowds of people, with the relative dead conditions of not so many years ago. The progressive merchant is profiting by this condition by displaying his wares in well-lighted windows. Observation has demonstrated that the minds of people at this stage of the day are in a most receptive

an exceedingly large proportion of the store rental. It is also self-evident that the more hours per day a space can be used, the less proportionate becomes the fixed charges per hour, consequently the merchant who fails to attract attention when there are people on the street, by not having his window well lighted, is actually losing money.

The standard of window lighting has improved greatly in the last few years, and no longer does the well-posted display man decorate his window attractively to have it spoiled when the sun goes down, by poor and improper lighting. Furthermore, it presents a splendid opportunity to promote the welfare of the community. Well-lighted and well-dressed windows, attractive signs and good street lighting cannot help but impress visitors and

*Article by G. Bertram Regar, illuminating engineer, Philadelphia Electric Company.

the window stand out prominently in comparison, than is the case on the side streets or outlying districts.

The possibilities of color lighting have not yet been fully appreciated. The moving picture industry makes every effort to inject effective displays into their productions, and the progressive merchant can do well to follow this cue, in the artistic display of his goods, and to cloak the setting with an atmosphere striking and peculiar to his subject.

It is imperative, however, that the subject be carefully studied and intelligently applied in order to bring out the artistic effects, which are practically unlimited.

The chief application of color is to create a vivid and compelling picture, and its improper use will distort and counteract the very object in mind and annoy the observer.

The following examples of color application are actual cases of several of Philadelphia merchants.

The first is that of a ladies' wearing apparel store with large windows. The window was bathed in a low intensity of amber light, a red spot light concentrated its light on a red shawl draped over a stand; a white spot light focused its rays on a white evening gown and a green spot on a green evening gown. The various colored lights brought out the similar color of the display in all their grandeur and the whole effect was striking.

The second case was an attractive millinery window containing a display of red hats. The window lighting was red, thereby showing off the hats to their best advantage. The monotony of the color was broken by the display of a white hat in the center of the window on which was focused a circle of bright white light, making a contrast that drew attention.

The next case was a small window of a dyeing establishment. A red dress was on display. The merchant, to be up-to-date, as he thought, was using blue lighting, which, owing to its high absorption qualities, always appears dim and which distorted the color of the dress, making it look purple and de-

feating the effect that he desired to create.

The remaining case was a large window of a fruit and produce store. The display was most attractive, but the merchant was using green light with the result that the strawberries and tomatoes looked dark, although the asparagus looked very good. With the installation of amber screens on a few general lights and red screens on the lights focused on the berries, tomatoes and oranges and a green light on the asparagus, the effect was like the work of a magician.

In conclusion, the application of window lighting is not as complex as it would seem. It is perhaps more standardized than any other form of lighting. Grasp its great potentialities as a business getter. Put in the proper kind of installation and if your business is suited to color effects, apply them intelligently.

Coming Conventions

Mid-Year Meeting of the National Warm Air Heating and Ventilating Association and Dedication of the Warm Air Heating Research Residence, Urbana, Illinois, December 2, 1924. Allen W. Williams, Secretary, Columbus, Ohio.

Western Warm Air Furnace & Supply Association Meeting, Sherman House, Chicago, December 4 and 5. Secretary John H. Hussie, 2407 Cuming Street, Omaha, Nebraska.

Western Retail Implement and Hardware Association Convention, Kansas City, Missouri, January 13, 14, 15, 1925. H. J. Hodge, Secretary, Abilene, Kansas.

Kentucky Hardware and Implement Association Convention, Jefferson County Armory, Louisville, week of January 18, 1925. J. M. Stone, Secretary-Treasurer, 200 Republic Building, Louisville.

Texas Hardware and Implement Association Convention, Dallas, Texas, January 20, 21, 22, 1925. Dan Scoates, Secretary-Treasurer, College Station.

West Virginia Hardware Association, Convention and Exhibition, Clarksburg, January 20 to 23, 1925. James B. Carson, Secretary, 1001 Schwind Building, Dayton, Ohio.

Missouri Retail Hardware Association, Convention and Exhibit, Hotel Statler, St. Louis, January 26 to 28, 1925. F. X. Becherer, Secretary, 5106 North Broadway, St. Louis.

Indiana Retail Hardware Association, Convention and Exhibit, Cadle Tabernacle, Indianapolis, January 27 to 30, 1925. G. F. Sheely, Secretary, 911 Meyer-Kiser Building, Indianapolis.

Mountain States Retail Hardware Association, Convention, Denver, Colorado, January 27 to 30, 1925. W. W. McAllister, Secretary, P. O. Box 513, Boulder, Colorado.

Indiana Sheet Metal Contractors' Association, Convention, Lafayette, February (dates not decided). Leslie W. Beach, 1136 Main Street, Richmond.

Oklahoma Hardware and Implement Association, Convention, Masonic Temple, Oklahoma City, February 3, 4, 5, 1925. Charles L. Unger, Secretary-Treasurer, Oklahoma City.

Nebraska Retail Hardware Association, Convention and Exhibition, Omaha, February 3, 4, 5, 6, 1925. Convention headquarters, Rome Hotel. Exhibition, City Auditorium. George H. Dietz, Secretary, 4141-419 Little Building, Lincoln.

Wisconsin Retail Hardware Association, Convention and Exhibition, Auditorium, Milwaukee, February 4, 5, 6, 1925. P. J. Jacobs, Secretary-Treasurer, Stevens Point.

Ohio Hardware Association, Convention and Exhibition, Columbus, February 10 to 13, 1925. James B. Carson, Secretary, 1001 Schwind Building, Dayton, Ohio.

New York State Retail Hardware Association, Convention and Exposition, Buffalo, February 10, 11, 12, 13, 1925. Headquarters, Hotel Statler. Exposition at the Broadway Auditorium. John B. Foley, Secretary, City Bank Building, Syracuse.

Iowa Retail Hardware Association, Convention, Savery Hotel; Exhibit, Armory, Des Moines, February 10 to 13, 1925. A. R. Sale, Secretary, Hardware Building, Mason City, Iowa.

North Dakota Retail Hardware Association, Convention (place not yet selected), February 11, 12, 13, 1925. C. N. Barnes, Secretary, Grand Forks.

Montana Implement and Hardware Association, Convention, Helena, February 13, 14, 1925. A. C. Talmage, Secretary-Treasurer, Bozeman.

Pennsylvania and Atlantic Seaboard Hardware Association, Convention and Exhibition, February 16 to 20, 1925, at Philadelphia Commercial Museum. Sharon E. Jones, Secretary, 604 Wesley Building, Philadelphia.

Illinois Retail Hardware Association, Convention and Exhibit, Hotel Sherman, Chicago, February 17 to 19, 1925. Leon D. Nish, Elgin, Illinois, Secretary.

Minnesota Retail Hardware Association, Convention, St. Paul Auditorium, St. Paul, February 17, 18, 19, 20, 1925. C. H. Casey, Secretary, Nicollet Avenue and Twenty-fourth Street, Minneapolis.

New England Hardware Dealers' Association, Convention and Exhibit, Mechanics' Building, Boston, Massachusetts, February 23, 24, 25, 1925. George A. Fiel, Secretary, 10 High Street, Boston.

Michigan Sheet Metal and Roofing Contractors' Association, Detroit, February, 1925. F. E. Ederle, 1121 Franklin Street, Grand Rapids, Secretary.

South Dakota Retail Hardware Association, Exhibit, Coliseum, Sioux Falls, February 24 to 27, 1925. C. H. Casey, Secretary, Nicollet Avenue and 20th Street, Minneapolis, Minnesota.

Michigan Retail Hardware Association, Convention, Grand Rapids, February 24, 25, 26, 27, 1925. Hotel headquarters, Hotel Pantlind. A. J. Scott, Secretary, Marine City.

National Retail Hardware Association, Philadelphia, June, 1925. H. P. Sheets, Secretary, Indianapolis.

National Association of Sheet Metal Contractors, Atlanta-Biltmore Hotel, Atlanta, Georgia, June 22 to 26, 1925. E. L. Seabrook, Secretary, 608 East Chestnut Street, Philadelphia, Pennsylvania.

C. S. Price Returns to Hardware Business at Owensboro, Kentucky.

C. S. Price, of Owensboro, Kentucky, has announced that he will open a first-class store of hardware, farm equipment, seeds, etc., December 1st.

Mr. Price was formerly with Birk & Price, but sold his interest on account of ill health and since regaining his health has decided to go into business again.

Mr. Price is an ardent supporter of the Kentucky Hardware Association and is always present at the state conventions.

How Many Customers Does Your Clerk Average Per Day?

Have you ever considered how many customers your clerks average per day? Did you ever stop and think what a difference the weather made upon both the clerk and the customer?

On a stormy day you would not expect many people to come into your store. That is only plain psychology. Your head clerk might wait on, say, only a dozen people, while on pleasant days he would be hustling to serve 175 customers. That would be about twenty an hour or three minutes to a customer. When you come to the pleasant day traffic it is surprising what a difference it makes in the sales per clerk by having your stock and prices arranged so as to cut down the time of sale for each item.

The entire store system should be arranged upon maximum sales. Sales are lost by reason of the clerks' inability to handle the trade when there is a rush.

The salesman should not think that an article is good, or will give satisfaction, he should know it, say he knows it, make his customer realize that he knows it. He should avoid making any statement which the customer cannot readily accept as being true. His manner should impress the customer that he is truthful.

What Kind of Service Do You Render Your Patrons?

Are you one of those back seat merchants without a code of ethics? If so, how have you managed to remain in the "bus" this long?

Before any man can hope to make a success of his business enterprise he must learn his proper function. He must ask himself what real service is he rendering to his community that he can demand a reward.

Supplying folks with the necessities of life is a necessary service. Some men can do this job much better than they can do some others; in fact, better than most people could do it for themselves. These men you will find in the business of supplying people with their needs so long as they can make a fair profit at that business.

As long as these men render that particular service better than anyone else, they have a right to demand a fair profit. When they become lax in their service, their usefulness diminishes.

See that the service you render is of the best:

Retail Hardware Doings

Arkansas.

The hardware department of the Albright-Rosson Furniture Company of Newport has been sold to Fred Stuart and John D. McLain. The new owners will move to the building occupied by the Beatie Hardware Company.

W. L. Seaman has purchased the Altus Cash Hardware store at Ozark, owned by T. C. Fleeman.

T. J. Bratton has sold his interest in the Bratton Hardware store at Banks to his son, D. P. Bratton, who will continue the business.

Colorado.

L. L. Tongish and W. J. Solko of Loveland have purchased the J. M. Fleming Hardware store at Berthoud.

Connecticut.

Ralph J. Comstock, Jr., of 12 Spring Street, South Norwalk, who has been a member of the sales force of the A. J. Hemphill Company, has opened a hardware store in the new Roodner Building at 57 North Main Street, South Norwalk.

Illinois.

A deal has been closed whereby Henry Kraus, senior member of the hardware firm of Kraus & Bowers, at 10th and Walnut Streets, Murphysboro, took over the Frank Bowers' third interest in the business.

Indiana.

Miller & Sons Hardware store at Kendallville has been sold to Oliver O. Schwob and his sister-in-law, Miss Myrtle Sheets, of Moundsville, West Virginia. The new firm will be known as Schwob-Sheets Hardware Company.

Iowa.

The Wold Brothers Hardware store at Saint Ansgar has been destroyed by fire.

Kansas.

A deal has been closed whereby T. J. Hughes purchased the Herington Hardware store at Herington from Floyd Smith.

Michigan.

Fire caused a loss of from \$20,000 to \$25,000 to the Daniel Orr Sons' fine hardware store in North Branch.

Minnesota.

Charles Kelzer has disposed of his interest in the hardware firm of Kelzer Brothers at Waconia to Mr. Henry J. Wellens of Chaska. The firm will in future be known as Kelzer & Wellens.

Missouri.

Moel Moss of Princeton has purchased the hardware stock of West & Hoe at Milan and has moved it to Princeton.

John N. Brown has sold his interest in the Musselman & Brown Hardware store at Gallatin to his partner, John Musselman.

Montana.

Walter E. Peoples, for many years connected with the Cut Bank Hardware Company, Cut Bank, has purchased the business.

Oklahoma.

The Willis-Cregan Hardware Company, formerly at 17 North Main Street, Sapulpa, has moved into their new attractive headquarters on East Dewey Avenue.

Pennsylvania.

The Smith & Yocum Hardware Company, Incorporated, at 106 West Main Street, Norristown, has been completely remodeled and the latest equipment installed.

South Dakota.

A deal has been closed whereby L. L. Leshar of Minneapolis became the owner of the O. H. Nessoth Hardware business at Lake Norden.

George W. Jenks has purchased the interest of Ben McIntyre in the hardware firm of McIntyre & Jenks at Faith, and is now the sole proprietor.

Tennessee.

The Cash and Carry Hardware Company at Nashville has been incorporated with a capital stock of \$3,000. The incorporators are: W. H. Quarles, T. W. Phillips, H. K. Lannom, John A. Fisher and C. H. Warwick, Jr.

The Wemyss Hix Hardware Company of Gallatin have purchased the store house on the north side of the public square, formerly occupied by E. Franklin and Son, from W. A. J. Simpson.

Texas.

A. D. Hope of Pike has purchased the large hardware business of J. P. Crouch in McKinney.

The Lewis-Tittle Hardware Company, 820 Scott Avenue, Wichita Falls, has been sold to Carroll Spangler, and will be known as the Spangler Hardware Company.

Advertisements Written With a Purpose Create a Demand Where None Existed.

Write Them From the Standpoint of the Buyer and They Will Hit the Mark Aimed at.

SOME hardware men labor under the impression, when writing advertising copy, that the more articles they can crowd into the ad the greater will be the representation. Leaving white space to them is permitting waste.

Quite the contrary is the true state of fact, however.

A judicious use of white space is as important a part of writing the ad as is the enumeration of articles therein.

The physical appearance of the ad has much to do with the attention it attracts from the reader.

Contrasting white and black is one of the most effective ways of drawing attention.

dwelt upon somewhat, in order to bring a greater state of perfection.

More careful proof reading would have revealed the error in the second line of the reading matter. The second sentence evidently should have read: "It is the purpose of this store . . .," whereas it now reads "story," which means nothing.

The headline, too, could have been improved upon. While not offensive as it now stands, a more forceful one would have had greater effect.

The appeal for stove business should have been made more conspicuous; that is, set off separately so as to give it an equal chance.

New arrivals of stock almost re-

reason why people should buy a coffee mill. Every person has heard somewhere or at some time that coffee ground and left standing in a jar loses its flavor.



GRIND IT YOURSELF
and the last percolator full of coffee will taste like the first one out of each pound.
We admit it is easier to get it ground but not economical.
Ground coffee loses its strength and flavor. You save both by using our coffee mills. A fine assortment to choose from, built right and priced right.
Your inspection of same is invited.
Portage Lake Hdwe.
10-24 Hudson St.
HOUGHTON, MICHIGAN

In this the store has shown very good judgment. In what better way could the copywriter have made his appeal? He has an appeal there which would be hard to improve upon. The details about the make of the mill he has left entirely for the personal inspection to reveal.

* * *

Time was when advertising was a dubious undertaking. Today it is a business necessity and its basic principle is that it must tell the truth if it is to succeed. Advertising seeks to persuade the buyer that the product offered is the best there is for his purpose and not that the competitor's product is the poorest. Advertising creates business because it spreads knowledge of useful trade offerings. Advertising is not an expense because it does not add to the expense of the article; it reduces the cost, because it creates larger sales volume and in that way reduces cost per unit. Advertising has developed little business into big business, and neither little business nor big business would think of getting along without advertising. Advertising has been elevated to a science; why not let that science build your business?

ARE YOU BUYING TO BEST ADVANTAGE?

Hardware constitutes a considerable item of expense in the annual budget of the average family. It is the purpose of this story to make that item of expense in your household as small as possible. To accomplish this aim, there are but two ways--Sell only hardware that endures and keep the prices down. We do both. We look ahead in keeping our hardware stock up-to-date and you will have no difficulty in finding what you want here. Just now we are receiving some new stoves. If you are thinking of buying one this fall, come in and see these.

Burgess Hardware Co.

No reader cares to wade through a solid mass of small type. The effect of a page of small, closely placed type is to repel the reader, regardless of the interest of the subject.

The accompanying advertisement, taken from the *Goodland, Indiana, Herald*, shows a good use of white space.

There are several minor errors in the advertisement which should be

quire a big noise announcing their advent, in order to be effective.

Selling appeals should be confined to positive declarations. Never start a selling story with "if."

* * *

The advertisement shown herewith was taken from the *Haughton, Michigan, Gazette*. In it the Portage Lake Hardware has shown its ability to analyze a product and to create advertising that gives a definite

Greater Prosperity Looked for in Near Future—Expansion Being Done Conservatively.

Prices on All Non-Ferrous Metals Show Slight Declines for the Week.

THE attitude of general business, including the metal trades, is to act very conservatively, and it is noted that the prices of all non-ferrous metals show slight declines for the week.

Wall Street has the reputation of being a good barometer, and is undoubtedly discounting the better trade conditions to rule this winter and next spring, but it seems difficult to see the basis for the lengths to which these anticipations are at present being carried.

The sensational activity in the stock market, which has now continued for more than two weeks to the accompaniment of advancing prices, is impressive but not altogether reassuring.

The outlook continues for a sound and orderly improvement in general business.

Copper.

The copper market stiffened materially the fore part of the week, and practically all of the 13¾-cent metal was absorbed.

Thus the market closed at 13⅞ cents a pound for Electrolytic delivered.

Producers are endeavoring to make a stronger stand, most of the large interests now holding Electrolytic at 14 cents delivered for shipment over the first quarter of next year.

Tin.

There were buyers of Straits tin the fore part of the week at 54 cents to 54.12½ cents, sellers at 54.25 cents to 54.37½ cents, but neither parties showed any great desire to trade and the market throughout the forenoon remained in a quiet but steady condition.

A little business has been done at 54.25 cents, but sellers do not care to go beyond December delivery at this price.

Solder.

Chicago warehouse prices on solder are as follows: Warranted, 50-50, \$33.75; Commercial, 45-55, \$33.00, and Plumbers', \$31.75, all per 100 pounds.

Zinc.

The zinc market is firm, with a good consuming inquiry for prompt and future shipment.

The St. Louis quotations prompt shipment are: 6.82 to 6.85 cents; December and January are the same.

Lead.

Lead is unchanged at from 8.65 to 9⅛ cents, New York, and 8.40 to 8.85 cents a pound, St. Louis.

The lead situation generally shows no material change.

A healthy statistical position obtains, owing to the continued large deliveries into consumption, but no remarkable activity in new buying.

Old Metals.

Wholesale quotations in the Chicago district, which should be considered as nominal, are as follows: Old steel axles, \$18.50 to \$19.00; old iron axles, \$25.00 to \$25.50; steel springs, \$19.50 to \$20.00; No. 1 wrought iron, \$15.00 to \$16.00; No. 1 cast, \$16.50 to \$17.00, all per net tons. Prices for non-ferrous metals are quoted as follows, per pound: Light copper, 9 cents; light brass, 6¼ cents; lead, 7 cents; zinc, 4 cents, and cast aluminum, 16½ cents.

Pig Iron

Selling of northern foundry iron continues extremely heavy in the Chicago district and it is believed that sales for November will approximate 300,000 tons. Practically every sizable melter in this district appears to have entered the market, with inquiries from 2,000 to 3,000 tons predominating. The rise to

\$21.50, furnace, for northern malleable and Number 2 foundry, with silicon differentials of \$1, has proved no damper to the market. Some of the larger melters like the Crane Company have made additional purchases. Activity in malleable iron has become more marked, with a Wisconsin melter taking 3,000 tons and a Michigan interest 2,000 tons. Many foundries already have specified their December quotas and will have to buy again for first quarter requirements. Although \$21.50 has been quoted by one selling interest for business through the first half, contracts for that delivery are not being solicited actively.

Charcoal iron sales are heavy, with one transaction of 600 tons being noted. The large tonnage booked last week may result in an advance of the present price from \$26, furnace. Low phosphorus sales are light. Southern iron is selling better, with \$18, Birmingham, apparently the minimum.

The movement of pig iron selling in the Pittsburgh section, which has come swiftly since the election, now is growing more sluggish. Most of the large users have covered on their requirements, although there is a considerable tonnage in the aggregate for smaller users still to be bought. Many consumers have closed only partially. Many of them are reluctant to pay the higher prices now prevailing. Total sales since election in the district are estimated at 200,000 tons. One producer with one furnace booked full for the first quarter turned down inquiries totaling 65,000 tons between November 10 and 14. Most of these inquiries were closed elsewhere as reported last week. One large interest it is understood, has been unable to cover its requirements for first half, producers avoiding commitments beyond March 31.